

**ANNUAL
GRADUATE
CATALOG**



**ILLINOIS
STATE
NORMAL
UNIVERSITY**

BULLETIN

1962-1963

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STATE OF ILLINOIS—LAND OF LINCOLN
OTTO F. KERNER, GOVERNOR

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University Calendar

1962, Summer Sessions

| | |
|-------------|---|
| June 18 | Opening of and registration for eight-week summer session |
| June 22 | Last day for late registration and course changes for eight-week session |
| July 31 | Last day for filing theses by candidates for graduation on August 10 |
| August 9-10 | Final examinations for eight-week summer session |
| August 10 | Summer commencement; close of eight-week session |
| August 13 | Opening of post session, with courses continuing for one, two, or three weeks |

1962, First Semester

| | |
|-----------------|--|
| September 10 | Opening of first semester |
| September 10 | Registration for late afternoon, evening, and Saturday courses according to a published schedule |
| September 11-13 | Registration according to a published schedule |
| September 14 | Classes begin |
| September 24 | Last day for late registration and course changes |
| October 8 | Illinois Education Association, Central Division meeting |
| October 19-20 | Homecoming |
| November 21 | Thanksgiving vacation begins, 12 noon |
| November 26 | Thanksgiving vacation ends, 8 a.m. |
| December 19 | Christmas vacation begins after scheduled classes |

1963

| | |
|---------------|---------------------------------------|
| January 3 | Christmas vacation ends, 8 a.m. |
| January 19-24 | Final examinations for first semester |
| January 25 | First semester closes |

1963, Second Semester

| | |
|---------------|--|
| January 28 | Opening of second semester |
| January 28 | Registration for late afternoon, evening, and Saturday courses, according to a published schedule. |
| January 29-31 | Registration according to a published schedule |
| February 1 | Classes begin |
| February 11 | Last day for late registration and course changes |
| April 6 | Spring vacation begins after scheduled classes |
| April 16 | Spring vacation ends, 8 a.m. |
| May 28 | Last day for filing theses by candidates for graduation on June 8 |
| May 30 | Memorial Day holiday |
| June 1-6 | Final examinations for second semester |
| June 8 | One-hundred-fourth annual commencement |

1963, Summer Sessions

| | |
|----------------|---------------------------|
| June 17-Aug. 9 | Eight-week summer session |
| August 12 | Opening of post session |

The Graduate School

The Graduate School of Illinois State Normal University shares with the Undergraduate School the primary purpose of the University: the preparation of professionally competent teachers, supervisors, administrators, and guidance and personnel workers for all educational levels from nursery school through senior college.

To attain this purpose the Graduate School strives constantly to achieve aims that include the following:

To select and admit qualified and competent students

To provide adequate laboratories for research and teaching

To provide a competent instructional and administrative staff

To provide opportunities for professional improvement through advanced academic and professional study

To encourage research in the principles of learning and teaching and in the several subject matter fields in order to promote both teaching competence and scholarly achievement

To maintain functional relationships with schools and colleges in order to base its program on an understanding of contemporary needs

Courses in the Graduate School are planned not only for students who desire to work toward degrees, but also for those who wish to continue their studies without reference to degree requirements.

History

Graduate courses at Illinois State Normal University were offered for the first time during the summer session of 1944 following authorization by the Teachers College Board on July 12, 1943. As early as 1937, the graduate committee of the university had initiated plans for graduate work, anticipating the time when such a program would be undertaken. The first degree of Master of Science in Education was granted on June 4, 1945. Since that time more than a thousand persons have received master's degrees from Illinois State Normal University.

In 1958 the long-term planning committee at the university recommended to the Teachers College Board a consideration of programs beyond the master's level. Soon thereafter the Graduate School began active work on plans to offer work leading to sixth-year and doctor's degrees. After intensive study the following programs and degrees were approved by the Graduate School: Art, doctoral degrees; Biological Sciences, doctoral degrees; School Administration, specialist and doctoral degrees. Authorization to offer these programs and to confer these degrees was granted by the Teachers College Board on November 20, 1961. The first work beyond the master's level was planned for the summer session, 1962.

From June, 1945 to August, 1961, Illinois State Normal University granted only the Master of Science in Education degree at the graduate level. On July

17, 1961, the Teachers College Board authorized the university to confer the Master of Arts and Master of Science degrees in addition to the degree of Master of Science in Education.

Accreditation

Illinois State Normal University is accredited on the master's level by the North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education. It holds institutional memberships in the American Council on Education and the American Association of Colleges for Teacher Education.

Faculty

All members of the faculty who regularly teach graduate courses have doctor's degrees. The graduate faculty members are listed in this catalog.

The competence of the graduate faculty is not measured in terms of degrees alone, but by excellence of work in classrooms and laboratories. Many staff members have offered graduate courses in other colleges and universities. Membership and participation in professional organizations and learned societies, as well as authorship of books, monographs, and articles, have all combined to provide recognition of many staff members as authorities in their fields.

Library and Other Facilities

Illinois State Normal University is fortunate in having Milner Library which includes facilities planned for graduate work. The library has a total of approximately 200,000 volumes. It receives more than 1,000 periodicals and scholarly journals, and is a depository for government publications.

There are seventy carrells in the stack area available for graduate students. The library also has spacious reading rooms, photocopying equipment, a special room for student typing, a Carnegie collection of recorded music, and extensive collections of children's books and curricular materials.

Excellent laboratories in the Felmley Hall of Science meet exacting requirements for advanced work in the various sciences.

Facilities in special education are made available in Fairchild Hall. This building was specially designed for education in areas involving the mentally retarded, the physically handicapped, the partially sighted and blind, the deaf and hard of hearing, and those requiring speech correction. There are also facilities for psychological services, including testing and counseling.

Summer Sessions

Illinois State Normal University provides two summer sessions—one session of eight weeks and a post session of one, two, or three weeks. More than half of the persons in attendance are teachers who wish to continue their education during the summers. A student receives the same instruction in the summer as in the regular academic year.

During the post session which follows the eight week summer session, a student may register for a one, two, or three-hour course. One-hour courses

continue for one week, two-hour courses for two weeks, and three-hour courses for three weeks.

Student teaching and internship facilities are available during the eight-week summer session for those who are qualified.

A graduate student may take eight semester hours during the eight-week session, or nine with permission of the Dean of the Graduate School.

The *Summer Bulletin* is issued annually and may be secured by writing to the Director of the Summer Session. The bulletin contains information on the cost of attendance, the schedule of classes, and special features of the summer session, such as the Educational Conference, Educational Exhibit, short courses, and workshops.

Late Afternoon, Evening, and Saturday Classes

Illinois State Normal University offers graduate courses on the campus late afternoons, evenings, and Saturday mornings during the regular school year.

Extension

Selected graduate courses are offered each year in various extension centers. Not more than six semester hours of graduate extension work may be used in meeting requirements for a master's degree. Inquiries concerning extension courses should be directed to the Division of University Extension and Field Services.

Admission

Applications and Credentials

All students who register for graduate courses for graduate credit must be approved for admission to the Graduate School, whether or not they plan to use the credit in meeting the requirements of a degree. All applications for admission must include official transcripts of all work taken at other colleges and universities, except that an applicant seeking unclassified status may submit, in lieu of transcripts, official evidence of his degree and a statement regarding all courses taken since receiving that degree. If at a later date the applicant requests admission to a degree program, the appropriate transcripts must be provided.

In each instance, a minimum of a bachelor's degree is required from a college or university that is accredited by the appropriate regional accrediting association or by the National Council for Accreditation of Teacher Education. A prospective student at the master's level should file his application, and arrange for official transcripts to be sent, at least three weeks before the date of registration. Filing at a later date may delay registration. Under special circumstances the Dean of the Graduate School may approve applications tentatively, pending receipt of official transcripts or action by the committee on admissions. Conditional admission will not be granted for short courses or post session.

Applicants for admission to specialist and doctoral programs are encouraged to apply as early as possible. Two months should be considered as the minimum period between filing of applications and registration.

Application blanks for admission to the Graduate School may be secured from and are filed with the Director, Office of Admissions and Records.

A student who is admitted to the Graduate School may be required to spend more than the minimum time to complete the work for the degree. Admission to the Graduate School does not guarantee candidacy for a degree.

Unclassified Students

The University recognizes two types of students who are eligible to take graduate work for graduate credit. These are (a) students in degree programs and (b) unclassified students.

A student in a degree program follows a program that, if successfully completed, leads to a degree. An unclassified graduate student may take graduate courses, but he has not been approved to work toward a degree. An unclassified student who later seeks to work toward a degree must meet the regular entrance requirements for a degree program. In the meantime there is no guarantee that courses taken may be used in meeting the requirements of a degree.

Credits earned by an unclassified student are recorded and are available for transfer. But such credit may not be used in meeting the requirements for a degree at Illinois State Normal University unless the student is regularly admitted to a degree program as noted above. If the student is admitted, he may then petition that earlier work be considered in meeting requirements. In approving such a request the University will consider the quality of the work and the requirements of the curriculum in which the student is enrolled.

An unclassified student may register for courses for which he has the prerequisites, unless such registration is restricted by the Dean of the Graduate School.

Admission to Master's Programs

An applicant for a program leading to the master's degree is considered on the basis of his academic record and other criteria that may include examinations, interviews, and letters of recommendation.

An applicant with a superior academic record may be admitted directly to a degree program. An applicant who does not have a superior academic record may be required to give evidence of ability to succeed in graduate work by taking a special examination. An examination may also be given to indicate the student's proficiency in the use of the English language. In considering an applicant for any curriculum, there may be departmental requirements in addition to the general requirements of the University.

When an application is approved, the admissions committee will indicate any courses that may be required to remove undergraduate deficiencies. The committee also may specify certain graduate courses which will be required in addition to those listed in the catalog. The committee will designate which, if any, of these courses may be used in meeting requirements for the degree.

A senior in good standing at this University may begin graduate work during the semester or summer session in which he completes the requirements for the bachelor's degree, if he otherwise qualifies for a degree program. During a semester he may not register for more graduate credit than the difference between fifteen hours and the number of hours required to complete the bachelor's degree. During the summer session he may not register for more graduate credit than the difference between eight hours and the number of hours required to complete the bachelor's degree. It is understood that graduate credit may be received for graduate courses only if requirements for the bachelor's degree are completed during the semester or summer session in which the student begins graduate work.

Admission to Specialist and Doctoral Program

A student seeking admission to a specialist or doctoral degree program must present letters of recommendation, and must take qualifying examinations before being admitted to the program. He may be required to come to the campus for an interview.

Admission of an applicant to a specialist or doctoral program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

Costs and Living Accommodations

The average cost for board, room, fees, and textbooks approximates \$1000 for the school year of 36 weeks. The fees below are subject to change.

Fees—Residents of Illinois

The following fees are due on registration day. Students are not admitted to classes until fees have been paid.

Each Semester

For students who register for more than six semester hours:

| | |
|----------------------------|---------|
| Registration fee | \$60.00 |
| *Activity fee | 14.00 |
| **Student Insurance | 7.50 |
| University Union fee | 11.00 |
| | <hr/> |
| | 92.50 |

For students who register for six semester hours or less:

| | |
|---|------|
| Registration fee per hour | 9.00 |
| No activity or University Union fees are charged. | |

* For 1963-64, the activity fee will be \$13.50 instead of \$14 and a recreational facilities fee of \$9 will be added.

** The charge for 1961-62 was \$7.50. This rate is subject to change.

Eight-Week Summer Session

For students who register for more than three semester hours:

| | |
|----------------------------|---------|
| Registration fee | \$30.00 |
| Activity fee | 5.00 |
| Student Insurance | 3.00 |
| University Union fee | 5.00 |
| | <hr/> |
| | \$43.00 |

For students who register for three semester hours or less:

| | |
|---|---------|
| Registration fee per hour | \$ 9.00 |
| No activity or University Union fees are charged. | |

Post Session and Short Sessions

| | |
|---|---------|
| Registration fee per hour | \$ 9.00 |
| No activity or University Union fees are charged. | |

Auditors

Fees for students who take courses as auditors, without credit:

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|--|---------|
| Registration fee per hour | \$ 9.00 |
| Maximum charge for a semester | 60.00 |
| Maximum charge for the eight week summer session | 30.00 |

Other Fees and Expenses

| | |
|--|---------|
| Textbook Service fee | \$ 1.50 |
| Charged if student is registered for one or more courses at the 100, 200, or 300 level. | |
| Graduation fee | 15.00 |
| Must be paid six weeks before commencement. | |
| Late registration fee | 3.00 |
| Charged after scheduled registration period. | |
| Change in program fee | 1.00 |
| Charged after regular registration period. | |
| Transcript of record | 1.00 |
| Charged after first two copies. Transcripts are issued only when all obligations have been met. | |
| Locker and towel fee for students in physical education courses (\$2.00 refunded when padlock is re- turned) | \$3.00 |

Graduate students are required to purchase their own textbooks for graduate courses.

The activity fee covers school activities and publications such as athletics, music programs, lectures, dramatic events, forensic events, class dues, the school paper, and the school annual.

The student insurance fee is for a student hospital-medical-surgical policy. This policy provides for all reasonable hospital expenses beginning with the first dollar and extending to a maximum of five hundred dollars, eighty per cent of any required surgeon's expense, and a major medical expense benefit of up to

five thousand dollars for any one accident or period of sickness. Coverage for dependents may be obtained at an additional cost.

Each student may exercise an option to continue this during the summer months even though he may not be enrolled in the university.

The contract for furnishing this insurance is re-bid each year in order that this coverage may be provided at the lowest possible cost to the student.

Fees—Out-of-State Students

A student who is not a resident of Illinois pays the non-resident registration fee indicated below. All other fees are the same for non-residents.

A student under 21 years of age is considered a non-resident if his parents are not legal residents of Illinois. A student over 21 years of age is considered a non-resident if he is not a legal resident of Illinois at the time of registration. The Registrar is responsible for applying out-of-state fees.

Each Semester

| | |
|---|----------|
| Non-resident registration fee, more than six semester hours | \$145.00 |
| Non-resident registration fee, six semester hours or less, per hour | 23.00 |

Eight-Week Summer Session

| | |
|---|----------|
| Non-resident registration fee, more than three semester hours | \$ 72.50 |
| Non-resident registration fee, three semester hours or less, per hour | 23.00 |

Refunds

The registration and student insurance fees are refunded if a student withdraws from the University within ten days after the designated registration days of the semester. For the eight-week summer session, five days are allowed. University Union and activity fees are not refunded.

Specifically, no refund of fees will be made after June 25, 1962 for the eight-week summer session, September 24, 1962 for the first semester, and February 11, 1963 for the second semester.

For all short sessions and the post session, no refund of fees will be made after the first day of the session.

Living Accommodations

Inquiries regarding housing should be addressed to the Office of University Housing.

On Campus

Current room and board rates in residence halls for men and women range from \$365-\$380 per semester. The University provides all room equipment and linens. Personal towels and blankets are provided by the student.

Married student housing facilities include 74 one-bedroom and 22 two-bedroom unfurnished apartments. One-bedroom units rent for \$55 per month, two-bedroom units, \$66 per month.

The University reserves the right to increase current rates if necessary at the beginning of any semester or summer term with the understanding that adequate notice will be given.

Off Campus

A rooming agreement, defining terms on which rooms are rented, is completed by all students and householders when space is reserved in University approved off-campus homes. Lists of available houses are maintained in the Housing Office.

Rates for rooms vary from \$5 to \$8 per week. Meals secured in the community average \$15 per week. In some homes, cooking privileges are available.

Assistantships, Scholarships, Financial Aids, and Employment

Graduate assistantships are available in most of the departments of the University. In addition, assistantships are granted to men and women who serve as counselors in the university residence halls. In each instance, the graduate assistant is assigned responsibilities that contribute directly to his professional career.

A graduate assistant working toward a master's degree may be paid \$120 per month, and may register for not more than twelve semester hours of academic work.

A graduate assistant who holds the master's degree and is working toward the specialist or doctor's degree may be paid \$180 per month and register for a maximum of twelve semester hours of academic work; or he may be paid \$240 per month and register for not more than eight semester hours.

Further information concerning assistantships may be obtained from the Dean of the Graduate School or the department in which the student is interested.

A graduate scholarship fund of \$250 is made available by the Illinois Congress of Parents and Teachers for graduate study in the field of Special Education. Recipients of graduate scholarships are selected on the basis of ability, personality, and professional interests. Information concerning these scholarships may be obtained from the Director of the Division of Special Education.

The undergraduate catalog lists other scholarships and grants, some of which may be available to graduate students.

A general loan fund is available for graduate students, from which they may borrow at a low rate of interest a sum not to exceed \$150. Information concerning this fund may be obtained from the Office of Student Financial Aids.

For Veterans

Federal Benefits

Veterans who entered the armed forces prior to February 1, 1955, may be eligible for Veterans Administration educational benefits under Public Law 550 ("Korean GI Bill"). For a single veteran carrying a full class load (a minimum

of 14 semester hours), the subsistence allotment is \$110 a month; if he has one dependent, \$135; two dependents, \$160. To be eligible for benefits under P.L. 550, a veteran must be regularly enrolled in the Graduate School, and his course work must represent progress toward the master's degree. Veterans who believe that they may be eligible for these benefits should contact the Office of Veterans' Services, 110 Hovey Hall, either by mail prior to registration or in person soon after their arrival on campus. Documents which may be submitted through this office include declarations of marital status, marriage certificates, and birth certificates.

Certain federal benefits are available under Public Law 634 to children whose father's death is attributed to service-connected disabilities. Such children of deceased veterans are invited to inquire at the Office of Veterans' Services for specific information.

State Military Scholarships

During any semester or summer session for which a veteran is not receiving federal benefits, he may avail himself of the provisions of the State Military Scholarship Law, provided he has an honorable discharge and was a resident of the state of Illinois at the time of induction. These scholarships, which cover four years of registration and activity fees at the state supported universities only, are administered through the Office of Admissions and Records.

Part-time Employment

There are possibilities for part-time work for both men and women on the campus and in the community. Information may be received from the Dean of Men or Dean of Women. Before entering into agreement with an employer, the student should consult the Dean of Men or Dean of Women.

Student Life and Services

University Code of Student Life

The University assumes that all of its students will accept the responsibility of maintaining high standards of personal behavior. It further assumes that persons who are unsympathetic with such standards or unwilling to maintain them will not apply for admission. The student is held responsible for meeting these standards in the interest of his own personal development, the reputation and traditions of this University, and the welfare of the teaching profession.

Any student who fails to meet these requirements may be asked to withdraw immediately from the University.

Regulations and policies governing student conduct, housing, activities, and services are in the *Code of Student Life*, a handbook for all students. Students will be held responsible for familiarity with the University Code.

Health Service

The University Health Service is maintained by and is an integral part of Illinois State Normal University. Because good health is essential for success as a student or teacher, the Health Service is concerned directly with the pro-

motion of good physical and mental health among University students.

The Health Service, located in Fairchild Hall, includes an infirmary of twenty-four beds. In addition to services which are educational or preventive in nature, the University physician is available for consultation during office hours regarding any health problem a student may have.

Each student who takes more than six semester hours during the semester is eligible for health service and is required to take a physical examination before entering the University. A student who takes more than 3 hours during the summer session also is eligible for health service but is not required to have a physical examination. The examination, when required, must be made at the student's expense during the sixty days preceding registration. It must be made by a physician licensed to practice medicine in the state of residence. A report of the findings of a chest x-ray or skin test for tuberculosis, done within the year, must be a part of this examination.

Psychological Counseling Service

The Psychological Counseling Service, located in Fairchild Hall, is available to University students who need help to avoid, correct, or alleviate maladjustments. In addition to providing counseling for students in the University, the Psychological Counseling Service provides training experiences for graduate students in the curriculum of Guidance and School-Psychologist Counselor.

Veterans Services

The Assistant Dean of Men is Director of Veterans Services. His office advises veterans on the provisions established by the federal government. In order that the proper forms may be executed, the veteran should write to the Director of Veterans Services before he registers.

If federal government financial aid is not available to the veteran, he may use the State Military Scholarship for his University fees. The veteran must have been a resident of Illinois when he entered military service. Evidence of such service must be presented to the Office of the Registrar.

For details regarding financial aid, see the section on Assistantships, Scholarships, Financial Aids, and Employment.

Cultural Opportunities

The University Union serves as a center for student activities, social and cultural. Lectures, entertainments, and art displays by faculty, students, and off-campus persons are presented in this building.

Undergraduate organizations on the campus present many programs of aesthetic, dramatic, and musical nature. There are also student forensic and athletic events.

The Entertainment Board brings to the campus each year the finest musicians, dancers, lecturers, and stage personalities. It also sponsors the Arts Theatre, featuring American and foreign film classics.

Civic organizations in Bloomington-Normal bring to this community musical and dramatic events.

Illinois Wesleyan University, located in Bloomington, presents cultural opportunities given by its faculty, students, and off-campus personalities and groups.

Bureau of Appointments

The University maintains an active program of teacher placement and endeavors to keep constantly informed regarding the requirements of the schools of the state, and qualifications of candidates for positions in the schools.

The Bureau makes an effort to follow up graduates in order to assist them to positions of responsibility commensurate with their experience and success in the field. All graduates who desire to secure professional and financial advancement should each year bring their credentials up to date in the Bureau of Appointments.

Alumni Relations

Through the Alumni Office, the Alumni Association and thirty-three ISNU Clubs, former students maintain contacts with one another and the University. The Alumni Office keeps records of over 20,000 alumni on file and also serves as headquarters for alumni when they are on the campus. The *News Letter*, a publication of the Publicity Office, goes to all graduates three times a year.

The *Alumni Quarterly* is published four times each year and serves as the organ of the Alumni Association. The Association plans Founder's Day, class reunions, the annual alumni luncheon at commencement, and also many homecoming activities.

Degrees and Certification

Illinois State Normal University offers the following degrees for approved programs of graduate study: Master of Science, Master of Science in Education, Master of Arts, Specialist in Education, Doctor of Philosophy, Doctor of Education.

The degree of Master of Science is granted to each graduate at the master's level unless a petition is approved for either the Master of Science in Education or the Master of Arts degree. Such a petition must be made by the student at the time he applies for graduation.

To qualify for the degree of Master of Science in Education, a student must have completed the stated requirements for the master's degree, must have met the academic requirements for an Illinois teaching certificate, and must have earned a minimum of 24 semester hours of credit in education and psychology at either the graduate or undergraduate level, including a minimum of 8 semester hours of student teaching.

To qualify for the degree of Master of Arts, a student must have completed the stated requirements for a master's degree. He must have earned credit for a minimum of two years (or its equivalent) of a foreign language, or must demonstrate a reading knowledge of a foreign language. He also must have earned a minimum of 32 semester hours of credit in the humanities and

social sciences, in addition to work in foreign language. These requirements in foreign language, humanities, and social sciences, may be met by satisfactory work at either the graduate or undergraduate level.

Additional information regarding criteria is available in the Office of the Graduate School.

In order to be eligible for a degree, each student must meet the general university requirements for the degree that he seeks. He must also complete the specific requirements of a particular program as described in this bulletin; and he must complete satisfactorily those courses recommended for his program by his academic adviser. It is the student's responsibility to make sure that he meets the requirements for graduation.

Certification Requirements

If a student plans to teach in elementary schools, secondary schools, or public junior colleges, he must meet prescribed certification standards in Illinois. It is understood that university requirements need not be limited to meeting minimum certification standards.

If a student plans to teach in colleges not requiring certification, he need not meet any specific certification requirements. However, unless he has an adequate background in education and psychology at the undergraduate level, he shall be required to include at the graduate level some professional study in the area of education and psychology consistent with an emphasis on preparation of college teachers in their respective teaching fields. The particular requirements of this professional study are determined by the Graduate School.

Commencement

Commencement is held twice each year, in June at the end of the second semester, and in August at the end of the eight-week session. Presence at commencement is required of all candidates for graduation. Permission for absence may be requested from the Dean of the Graduate School if the student is unable to be present.

A student must apply for graduation no later than six weeks preceding the date of graduation. At the time application is made, the graduation fee of \$15 must be paid.

Students who complete the requirements for a degree after the close of the eight-week summer session receive their degrees at the following June commencement.

Master's Degrees

Programs and Requirements

Curricula

Secondary, Community College, College Teaching

The following departments offer graduate programs designed primarily for teachers in secondary schools and colleges:

| | |
|--------------------------------------|--------------------------|
| Art | Home Economics |
| Biological Sciences | Industrial Arts |
| Business Education | Mathematics |
| English | Music |
| Foreign Languages | Physical Sciences |
| Geography | Social Sciences |
| Health and Physical Education | Speech |

Students planning to teach in secondary schools or publicly-supported junior colleges are required to take at least 9 semester hours in education and psychology. Specific course requirements include Education 475 and 476 for students in secondary education, and Education 472 and 475 for students in the community college curriculum. Certain recommended electives are listed with the course offerings of the Department of Education and Psychology. Additional courses are selected following recommendations of the academic adviser in the department of specialization.

Students planning to teach in colleges not requiring certification must include some professional study in the area of education and psychology consistent with an emphasis on preparation of college teachers in their respective teaching fields. The particular requirements of this professional study are determined by the Graduate School.

Elementary Education

At least 12 semester hours in Education and Psychology are required, including Education 403, 475, and 476.

In the general Elementary Education curriculum, additional courses are selected following recommendations of the Director of the Division of Elementary Education.

A student who wishes to specialize may do so in any one of the departments noted below. In this instance courses in addition to those required in Education and Psychology are selected following recommendations of the academic adviser in the department of specialization: Biological Sciences, Geography, Health and Physical Education for Women, Music, and Social Sciences.

Special Education

At least 12 semester hours in Education and Psychology are required, including Education 475 and Psychology 301.

Additional courses are selected following recommendations of the Director of the Division of Special Education with reference to areas of specialization.

Areas of specialization are: Deaf and Hard of Hearing, Mentally Retarded, Visually Impaired, Physically Handicapped, Speech Correction.

Guidance

At least 20 semester hours in Education and Psychology are required, including Education 360, 475, 487, and Psychology 301, 334, 433, and 460.

Additional courses are selected following recommendations of the adviser in this curriculum.

School Psychologist-Counselor

At least 20 semester hours in Education and Psychology are required, including Education 434, 475, and Psychology 334, 433, 434, and 436.

Additional courses are selected following recommendations of the adviser in this curriculum.

Supervision

At least 20 semester hours in Education and Psychology are required, including Education 475 and 476.

If emphasis is on supervision of instruction, Education 403, 477, 487, and 488 must be included. If specialization is in supervision of student teaching in elementary schools, Education 403, 487, and 497 are required. If specialization is in supervision of student teaching in secondary schools, Education 360, 477, and 497 are required.

Additional courses are selected following recommendations of the adviser in this curriculum.

Students without teaching experience may not select this curriculum unless they have the consent of the Dean of the Graduate School.

School Administration

At least 20 semester hours of Education and Psychology are required, including Education 475, 476, 478, 479, and 481 and Social Sciences 465.

Additional courses are selected following recommendations of the adviser in this curriculum.

Students without teaching experience may not select this curriculum unless they have the consent of the Dean of the Graduate School.

Credit Requirements

A minimum requirement for the master's degree is 28 semester hours of course work in addition to a thesis. With the approval of his academic adviser, a student may elect an alternate plan in lieu of the thesis. Under this plan he must present 4 semester hours of additional course work and pass a comprehensive written examination in meeting the requirements for the degree. This comprehensive written examination is the joint responsibility of the department and the Graduate School.

In the fields of secondary, community college, and college teaching, a student who elects the option of 28 semester hours, plus thesis, is required to present, in addition to the thesis, a minimum of 16 semester hours at the 400 level, including a minimum of 9 semester hours in his major field. If he selects the option of 32 semester hours, plus a comprehensive written examination, he shall be required to present a minimum of 20 semester hours at the 400 level, including a minimum of 12 semester hours in his major field.

Students in other curricula must present a similar proportion of work at the 400 level.

All graduate credit used in meeting requirements for the degree must be earned within a period of six years.

Transfer and Extension Credit

On approval of the Dean of the Graduate School, a student holding a bachelor's degree from this university may present a maximum of eight semester hours of graduate credit from another college or university for use in meeting the requirements of the master's degree. A student who holds a bachelor's degree from another college or university may present a maximum of six semester hours of graduate credit earned at another college or university. A student who plans to take courses elsewhere is advised to have such work approved in advance to make sure that the courses are appropriate for his curriculum at Illinois State Normal University.

Not more than six semester hours of graduate extension work may be applied toward the master's degree. Correspondence courses are not accepted toward a master's degree.

Academic Advisers

Each student has an academic adviser to assist him in planning his work. This adviser should be consulted regarding the basic sequence of courses, the selection of electives, and the option of thesis or comprehensive written examination. At registration, each student's program should carry the approval of his academic adviser. If a program does not have such approval, there is no assurance that the courses can be used in meeting the requirements for the degree.

If a student follows a curriculum of specialization in a subject-matter field, the head of the department concerned is his academic adviser unless another faculty member has been appointed by the head of the department. This plan applies to all secondary, community college, and college teaching curricula, also elementary education with departmental specialization. In other curricula, other academic advisers have been appointed.

An advisory committee is appointed for each student who writes a thesis. This committee is responsible for directing the thesis project, recommending the student for admission to candidacy for the degree, and conducting the final examination.

If a student chooses the option of a comprehensive written examination, his academic adviser has the responsibility of recommending him for admission to candidacy and conducting the final examination.

Thesis

In addition to meeting the requirements of a particular curriculum, the student must choose one of the following plans: (a) complete a minimum of 28 semester hours of approved graduate work, and write a thesis, or (b) complete a minimum of 32 semester hours of approved graduate work, and take a comprehensive written examination covering the work presented in meeting the requirements of the master's degree.

In earlier years a student might elect to prepare two research papers in lieu of thesis. Students who began their graduate work before June, 1962 continue to have this option, if they complete the requirements for a master's degree not later than the end of the summer session, 1963. Such students, however, are permitted to choose from the options noted above.

A student does not register for a course in thesis. However, a record of 4 semester hours of credit for thesis is entered on the student's record at the close of the session in which he completes the thesis and passes the master's examination.

There is no assumption of uniformity in thesis research. For example, a student may propose a creative project in art or music. In each instance, however, the completed project must meet approved standards of scholarship in the chosen field of study. In each instance there must be evidence of ability to think logically, to gather and organize material, to draw and defend conclusions, and to present the results of the foregoing procedures in a creditable manner.

A thesis is written under the direction of an advisory committee. The chairman of the advisory committee must be a member of the department representing the student's major field. This chairman is appointed by the head of the department or the academic adviser. The second member of the advisory committee is appointed by the Dean of the Graduate School, following a joint recommendation by the student and the chairman of the advisory committee.

It is the responsibility of the student to file one original and one carbon copy of the approved thesis, unbound, in the Library at least ten days before he expects to take his final examination. A student may also be required to file a copy with his academic adviser or the head of his department.

A descriptive note or annotation of not more than thirty words and an abstract of not more than three hundred words must be approved by the advisory committee and must accompany the thesis when it is filed in the Library.

A student must be admitted to a degree program in the Graduate School before a thesis committee can be appointed.

The title, scope, and design of each proposed thesis must be approved by the Dean of the Graduate School. This approval must be received before a student may apply for admission to candidacy. Applications for admission to candidacy must be filed with the Dean of the Graduate School on or before March 1 preceding the date on which the student expects to receive the master's degree. In order to allow time for review, the student is required to file his *Proposal for Research* with the Dean of the Graduate School not later than February 10 preceding the date on which he expects to receive the master's degree.

If the student chooses the additional course work and comprehensive written examination in lieu of thesis, this fact must be stated in the application for admission to candidacy, and must have the approval of the student's academic adviser.

The student is urged to consult the thesis adviser of the Graduate School as soon as he has completed a preliminary draft of the first part of his thesis and has received approval of this draft by his thesis committee. At this time the thesis adviser of the Graduate School will counsel the student regarding problems such as those related to format, footnotes, illustrations, and the use of language.

Before a thesis is deposited in the Library, it is the responsibility of the thesis adviser of the Graduate School to examine the materials and to make sure

that the report is neatly and accurately typed; is free of technical errors in format, footnoting, and bibliography; is suitable for binding; and reflects credit upon the University and its graduate program. If the form of the thesis is not thus approved, the student must make whatever corrections are necessary and submit the materials again.

Detailed instructions regarding theses are available in the office of the Dean of the Graduate School. The student is required to follow these instructions.

Admission to Candidacy

The student must file with the Dean of the Graduate School an application for admission to candidacy for the master's degree on or before March 1 preceding the date on which he expects to receive the degree. At the time of filing, all requirements for admission to candidacy must be satisfied, including removal of all deficiencies. Normally the student applies for admission to candidacy when he has completed approximately half of his work toward the degree.

If a student chooses the thesis option, the recommendation of his advisory committee is required in applying for admission to candidacy. If he chooses the option of additional course work and a comprehensive written examination, this fact must be stated and approved by the student's academic adviser.

The Graduate Council has the responsibility of approving admission to candidacy.

Examinations

An examination, oral, written, or both, must be taken by each student before he receives the master's degree. This examination covers the graduate work which the student is presenting for his degree. The time, place, and nature of the examination are determined by the student's advisory committee if he selects the thesis option. The comprehensive written examination is the joint responsibility of the department and the Graduate School.

Specialist in Education **Program Requirements**

Admission

A student seeking admission to a program leading to the Specialist in Education degree must present letters of recommendation and must take qualifying examinations before being admitted to the program. He may be required to come to the campus for an interview.

Admission of an applicant to a specialist degree program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

A doctoral student may take the specialist degree (if available in his field) as part of his doctoral sequence, but he is not required to do so. He must, however, determine in advance if he plans to apply for the Specialist in Education degree.

Academic Advisers

The head of the department, with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a specialist degree program. If the student is pursuing a minor field of study, as well as a major field, the adviser, in approving the student's program, should secure the advice of the department representing the student's minor field. At the time of each registration, the academic adviser files copies of the student's program with the heads of departments concerned and with the Dean of the Graduate School.

Curriculum

A student seeking the specialist degree must select a major field of study, also a supporting program approved by his academic adviser, the Dean of the Graduate School, and the department directly involved.

Transfer and Residence

A student seeking the specialist degree may petition to transfer, from another institution, not to exceed six semester hours of graduate credit beyond the master's degree. The Dean of the Graduate School must approve all transfer credit used in meeting the requirements for the specialist degree.

A student seeking the specialist degree must, after receiving a master's degree, complete at this university the equivalent of at least one academic year of graduate work. This must include one semester in which he is in residence; or one summer during which he is in residence for eleven consecutive weeks. A student is considered to be in residence when he devotes a major portion of his time to graduate study and research on the campus.

A student will not be considered in residence while he is employed full-time.

Extension courses may not be used in meeting residence requirements for the specialist degree.

Time Limitations

The specialist degree is not granted on the basis of a student having successfully completed a certain number of courses, but upon evidence of his scholarly attainment as demonstrated especially by examinations and competence in research.

Although course credit is not the primary basis for granting the specialist degree, a student is not eligible to take his final examination until the latter part of the session in which he is completing thirty semester hours of work beyond the master's degree. More than two semesters may be necessary to complete all requirements for the degree.

All work for the specialist degree must be completed within six calendar years after the student begins work beyond the master's level. If the student does not complete his work during this time, he may be required to take additional examinations, or additional course work, or both, in order to continue in the specialist program.

Admission to Candidacy

A student seeking the specialist degree may be admitted to candidacy after: (a) removal of any deficiencies assessed at admission, (b) approval of his proposal for research, and (c) approval by his academic adviser of a plan of study leading to the specialist degree.

Research

A student seeking the specialist degree is required to complete a research project that gives evidence of his scholarly attainment and capacity for independent investigation appropriate to the degree.

The Dean of the Graduate School appoints the student's research committee, which includes his academic adviser. The topic and research design must be approved by Dean of the Graduate School and the department representing the student's major field. The entire committee shares the responsibility for the research project although the academic adviser may work more directly with the student.

Final Examination

The Dean of the Graduate School appoints a committee which is responsible for the final examination. This examination may be oral, written, or both. The committee includes the student's academic adviser, as well as other members of the graduate faculty.

Doctor of Philosophy and Doctor of Education

Program Requirements

Admission

A student seeking admission to a doctoral degree program must present letters of recommendation, and must take qualifying examinations before being admitted to the program. He may be required to come to the campus for an interview.

Admission of an applicant to a doctoral program will take account of personal and professional qualifications as well as scholastic records and measurement of academic ability. Admission involves approval by the department as well as the Graduate School.

A doctoral student may take the specialist degree (if available in his field) as part of his doctoral sequence, but he is not required to do so. He must, however, determine in advance if he plans to apply for the degree, Specialist in Education.

Academic Adviser

The head of the department, with the approval of the Dean of the Graduate School, appoints an academic adviser for each student admitted to a doctoral program. This adviser shall be responsible for approving the student's program of courses with the advice of departments representing, when applicable, both the major and minor field. At the time of each registration, the academic

adviser files copies of the student's program with the heads of departments concerned and with the Dean of the Graduate School.

Curriculum

A doctoral student must select both a major and a minor field (or fields) of study. The selection of minor field (or fields) must have the approval of the Dean of the Graduate School and the department directly involved. A minor field may, under certain circumstances, be in the same department as a major field.

Residence

A doctoral student, after receiving a master's degree, must complete at this university the equivalent of at least one year of resident graduate work. This must include two consecutive semesters in which he is in residence. Work in summer sessions may not be used in meeting this requirement of two consecutive semesters. A student is considered to be in residence when he devotes a major portion of his time to graduate study and research on the campus.

A student will not be considered in residence while he is employed full-time.

Extension courses may not be used in meeting residence requirements for the doctor's degree.

Time Limitations

The doctor's degree is not granted on the basis of a student having successfully completed a certain number of courses, but upon evidence of his scholarly attainment as demonstrated especially by examinations and competence in research.

Although course credit is not the primary basis for granting a doctor's degree, a student is not eligible to take his final examination unless he has completed at least four semesters, or its equivalent, of residence work beyond the master's degree, including work at this and any other university. Most students may require more than four semesters.

All work for the doctorate, including the dissertation, must be completed within eight calendar years after the student begins work beyond the master's level. If the student does not complete his work during this time, he may be required to take additional qualifying examinations, or additional course work, or both, in order to continue in the doctoral program.

Foreign Languages

The general requirement for the Ph. D. degree is a reading knowledge of two foreign languages chosen from French, German, Russian or other approved languages. The student's choice of languages must be approved by his academic adviser and the Dean of the Graduate School.

By petition, the Ph. D. student may substitute a more advanced knowledge of one language for a dictionary reading knowledge of two. In each instance the Department of Foreign Languages has the responsibility of certifying that the language requirement has been met.

A candidate for the Ed. D. degree meets the same general requirements as the Ph. D. candidate with the exception of foreign language. In lieu of foreign language, the Ed. D. candidate may substitute a program of course work clearly

related to the student's field of research or anticipated professional career. This program must be approved by the Dean of the Graduate School.

Preliminary Examination and Admission to Candidacy

A doctoral student may be admitted to candidacy after: (a) meeting the foreign language requirement or an alternate approved program, (b) passing a comprehensive preliminary examination, and (c) receiving approval of the dissertation topic.

The comprehensive preliminary examination is written or written and oral. It covers both major and minor fields. It also is concerned with the student's professional competence and his ability to undertake independent research.

The Dean of the Graduate School appoints the examining committee which includes the student's academic adviser and a representative of his minor field (or fields).

Research

The Dean of the Graduate School appoints a dissertation committee which includes the student's academic adviser. The topic of the dissertation must be approved by the Dean of the Graduate School and the department representing the student's major field. The entire committee shares responsibility for the dissertation although the academic adviser may work more directly with the student.

The dissertation must be approved first by the dissertation committee, then by a reading committee appointed by the Dean of the Graduate School. This reading committee represents the university at large.

The student is not required to have the dissertation printed. He may be required to pay the expense of microfilming for distribution by University Microfilms. The University may publish part or all of the dissertation.

Final Examination

The Dean of the Graduate School appoints a committee which is responsible for the final examination. This examination may be oral, written, or both, and is concerned with more than the dissertation topic. The committee includes the student's academic adviser, as well as other members of the graduate faculty.

Academic Procedures and Regulations

The Grading System

Grades

The grades with their value in grade points are as follows:

| | | |
|---------------|--------------|-----------------------------------|
| A | (Passing) | 4 grade points per semester hour |
| B | (Passing) | 3 grade points per semester hour |
| C | (Passing) | 2 grade points per semester hour |
| D | (Passing) | 1 grade point per semester hour |
| F, WF | (Failing) | 0 grade points per semester hour |
| I | (Incomplete) | No grade points per semester hour |
| WX, WP | (Withdrawal) | No grade points per semester hour |

A, B, C, or D will be recorded for work which has been given a passing grade.

F will be given to: (1) Students who withdraw from a course at any time without official permission: (2) Students who are in a course all semester but who fail to make a passing mark.

Withdrawals

WX, WP, and WF will be given to students who have been given official permission to withdraw from a course. WX is given if the student withdraws before the quality of work can be determined; WP, if the student is passing at the time of withdrawal; and WF, if failing.

Official permission to withdraw from a course or from the University should be requested in the office of the Graduate School. In case of accident, or illness, which would make withdrawal in the regular way impossible, a letter should be sent to the Dean of the Graduate School explaining the situation. The student must clear all obligations and return rental books, library books, and library card.

If a student withdraws from a class or from the University during the semester without arranging officially with the Dean of the Graduate School, his withdrawal will be considered unofficial after three weeks of absence, or by the close of the semester (whichever is the shorter period of time), unless a justifiable reason for extension of time is accepted by the Dean of the Graduate School. Grades of F are recorded for unofficial withdrawal.

Incompletes

An I (incomplete) will be given to a student who is doing passing work but who, because of illness or other justifiable reasons, finds it impossible to complete the work by the end of the semester or session. The student must be in class to within three weeks of the close of the semester or one week of the summer session, and the quality of his work is such that he can complete it through special assignments and examinations. Incompletes should be cleared during the next semester or session a student is in school and must be cleared before one year has elapsed.

Academic Load

During the semester, the maximum academic load for graduate students is fifteen semester hours.

In the eight-week summer session, the maximum load is eight semester hours. With permission of the Dean of the Graduate School, nine semester hours may be taken.

Part-time students who are holding full-time positions, may not take more than six semester hours per semester.

If a student holds an assistantship, his academic class load is adjusted accordingly.

Scholarship and Other Requirements

A student must have at least a B average at this university in order to be admitted to candidacy for a degree. For graduation, a B average is also required.

Transfer credit must carry a grade of B or better if it is to be used in meeting requirements for a degree. Courses completed at this university with

grades below C may not count toward a degree, but these grades are counted in computing the average. If a graduate student repeats a course, both grades are counted in computing the grade-point average.

All grades of I (incomplete) must be removed six weeks before the June commencement and two weeks before the August commencement, if the student plans to graduate at these times.

The last course or courses before graduation must be completed with this university.

It is the student's responsibility to make a formal request for the transfer of any credit which he proposes to use in meeting requirements at this university.

The Council may deny admission to the University, or registration at any time, or admission to candidacy for the degree, upon the basis of unsatisfactory scholarship or what in their judgment is unfitness for teaching on physical, moral, mental, or emotional grounds.

Auditor

A student may register as auditor, attending class without participation and without credit. Registration must have the approval of the instructor. Registration as an auditor is performed separately through the Office of the Registrar. The auditor fee is indicated in the section on cost. Students who are registered for six or more hours for credit may audit courses free of charge.

Departments and Course Offerings

SEMESTER PLAN

The University operates on the semester plan. The value of courses is, therefore, in terms of semester hours. A semester hour is assigned for a fifty-minute period of lecture or discussion for a semester of 18 weeks. For laboratory two fifty-minute periods are necessary for a semester hour.

COURSE NUMBERING SYSTEM

This *Graduate Catalog* contains courses numbered 300 to 499.

300-399 Advanced undergraduate and graduate courses. Open to juniors, seniors, and graduate students.

400-499 Graduate courses.

TEACHING STAFF

The members of the teaching staff of each department are listed in the departmental sections which follow. The entire faculty for the Graduate School is shown in a section after *Departments and Course Offerings*.

ART

TEACHING STAFF

Head of the Department: F. Louis Hoover. Office: Centennial Building, West 203.

Professors: F. Louis Hoover, Marion G. Miller.

Associate Professors: Ruth M. Freyberger, Stanley G. Wold.

Assistant Professor: Frank Bedogne, Jr.

Note: Instructors of certain studio courses are appointed on a yearly basis by the Dean of the Faculty.

In addition to the master's program, the department offers programs leading to the Doctor of Philosophy and Doctor of Education degrees. University requirements for the doctoral programs are described on pages 22-24.

The doctoral programs have as their major purpose the preparation of college and university teachers of art and art education, and the preparation of supervisors and directors of art in public schools.

Near the conclusion of his program of studies, the candidate may be required to prepare an exhibition of his creative work in which he is expected to demonstrate proficiency in at least one area of creative production.

The Department of Art reserves the right to keep examples of original work produced by graduate students for its permanent collection of student art work.

321 *Philosophy of Art Education* 3 sem. hrs.

The role of art in society and the historic development of art education in public schools. Emphasis upon the development of a personal philosophy of the role of art in the democratic society.

324 *Advanced Jewelry and Silversmithing* 2-6 sem. hrs.

Special problems in jewelry and silversmithing. May be repeated.

Prerequisite: Art 224.

327 *Advanced Ceramics* 2-6 sem. hrs.

Special problems in ceramics. May be repeated. Prerequisite: Art 227.

331 *Advanced Drawing* 1-3 sem.hrs.

Special problems in drawing. May be repeated. Prerequisite: Art 114.

332 *Advanced Sculpture* 2-6 sem. hrs.

Special problems in sculpture. May be repeated.

Prerequisite: Art 232.

340 *Advanced Weaving* 2-6 sem. hrs.

Special problems in weaving. May be repeated. Prerequisite: Art 240.

345 *Advanced Graphics* 2-6 sem. hrs.

Special problems in graphic arts. May be repeated.

Prerequisite: Art 245.

361 *Advanced Painting* 2-6 sem. hrs.

Special problems in painting. May be repeated. Prerequisite: Art 262.

370 *Contemporary Art* 2 sem. hrs.

(Formerly 327)

Development of modern movements in painting, sculpture, architecture, and industrial design in Europe and America.

375 *Renaissance Art* 3 sem. hrs. (Formerly 419)

General influence determining the art product in Italy, Germany, Holland, England, and Flanders; related arts. Sources and readings for research. Chronological survey of artistic evidence in architecture, sculpture, painting, and the minor arts.

381 *Art in the United States* 3 sem. hrs.

A survey of the development of painting, sculpture, industrial design, and architecture in the United States with an emphasis upon twentieth-century trends.

401 *Current Practices in Art Education* 2 sem. hrs. (Formerly 402)

Development of a philosophy of art education. Basic readings in the field of art education, including city and state courses of study. Not open to art majors.

402 *Studies in Art Education* 2 sem. hrs. (Formerly 501)

Problems in art education from the point of view of research and experimentation. Development of instructional methods and materials, and means of testing their validity.

403 *Organization of Public School Art Programs* 2 sem. hrs.

Problems relating to the development and administration of total public school art programs in communities of different sizes.

411 *Art in Elementary Schools* 3 sem. hrs.

Art program from kindergarten through the sixth grade: content, methods, and teaching materials. The role of art in the total curriculum.

412 *Art in Secondary Schools* 3 sem. hrs.

The art program at the junior, senior high, and junior college levels: content, methods, and teaching materials. The role of art in the total curriculum.

421 *Problems in Teaching College Art* 2-5 sem. hrs.

Opportunity for observation, participation and teaching at the college level. Assignments are made with the approval of the department head at least two months prior to registration.

422 *Teacher Education Programs in Art* 2 sem. hrs.

Planning college and university art programs for the preparation of teachers.

425 *Psychology of Art Activity* 2 sem. hrs. (Formerly 482)

Effects of the creative experience on the individual in terms of emotional release, physical coordination, intellectual organization, and social adjustments. Significance of the art product in personal development and community life.

444 *Problems in Studio Work* 2-6 sem. hrs.

Individual study and direction in creative activity. May be repeated.

451 *Special Projects in Art* 2-6 sem. hrs. (Formerly 511)

Special project in art or art education chosen by the student for investigation with the approval of the instructor. A student may enroll in this course for credit more than once if the material covered is not duplicated.

471 *Primitive Art* 3 sem. hrs.

Arts of preliterate cultures in several parts of the world and the culture traits, complexes, and institutions associated with them.

482 *Contemporary Painting* 3 sem. hrs. (Formerly 421)

Backgrounds for twentieth-century painting. Major movements in modern painting: Impressionism, Post-Impressionism, Dada, Surrealism, social consciousness, Regionalism, Abstract Expressionism. Painting today.

483 *Contemporary Architecture* 3 sem. hrs. (Formerly 422)
Backgrounds for twentieth-century architecture. New materials and techniques. The European group: Oud, Le Corbusier, Gropius, and van der Rohe. The Americans: Richardson, Sullivan, and Wright. The International Style. The American home today.

498 *Research Seminar in Art* 2-6 sem. hrs. (Formerly 598)
Critical investigation of research which is of value to the teacher of art. Independent study and research. May be repeated for total of 8 semester hours.

499 *Thesis* 4 sem. hrs. (Formerly 599)

BIOLOGICAL SCIENCES

TEACHING STAFF

Head of the Department: R. Omar Rilett. Office: Science Building 206.

Professors: Walter H. Brown, Eleanor Dilks, Dorothy E. Fensholt, Nina E. Gray, J. Louis Martens, E. Ione Rhymmer, Donald T. Ries, R. Omar Rilett.

Associate Professors: Hisao Arai, Paul F. Doolin, J. Alan Holman, Loren W. Mentzer, Andreas Paloumpis, Robert D. Weigel.

Assistant Professors: Mary Arai, Dennis N. Homan, Anthony E. Liberta, Edward L. Mockford.

A major in Biological Sciences at the master's level is required to take the following courses: 300 and 301—Readings in the Biological Sciences, and 304—Seminar in Biology.

In addition to the master's program, the department offers work leading to the Doctor of Philosophy degree, including studies in botany, health, microbiology, and zoology. This program has as its major purpose the preparation of college teachers in biological sciences. University requirements for the doctoral program are described on pages 22-24.

BIOLOGY

300 and 301 *Readings in the Biological Sciences* Each 1 sem. hr.
(Formerly 400 and 401)

Required of all graduate students in the biological sciences.

302 *History of Biology* 3 sem. hrs.

An intensive survey of great personalities of biology emphasizing their contributions to the advancement of science. Lecture.

303 *Teaching of Science in the Elementary Schools* 3 sem. hrs.
(Formerly 403)

Present-day developments in science in relation to elementary school situations. Consideration of the content, activities, and approach involved in the teaching of an integrated science program related to the life of the individual for various grade levels. Lecture and laboratory.

304 *Seminar in Biology* 1 sem. hr. (Formerly 420)

Participation each semester by all seniors and graduate students in the Department is recommended. Credit is given only for the first semester of participation. Staff, guest speakers, and graduate students will discuss their research at these seminars.

305 *Special Problems in Biology* 1-3 sem. hrs. (Formerly 421)

Special work in a variety of fields including biometry, mycology, algae, herpetology, ichthyology, mammalogy, radiation biology, genetics, ecology, and microtechnique. Assignments depend on student's interest and background. Projects must be approved by the instructor and the Head of the Department.

306 *Regional and Areal Studies* 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

318 *Laboratory Techniques* 2 sem. hrs.

Procedures for the preparation of biological materials of all kinds. Preparation of microscope slides, embedding in plastic, plastic injections, nerve preparations, and the building of models are undertaken. Lecture and laboratory.

319 *Genetics and Evolution* 3 sem. hrs. (Formerly 321)

Mechanics of inheritance and evolution in the plant and animal kingdoms. Prerequisite: 12 semester hours of courses with laboratory in biological sciences.

401 *General Ecology* 4 sem. hrs. (Formerly 524)

Influence of environmental factors upon plant and animal associations. Analysis of representative communities. Field and laboratory research techniques. Lectures, laboratory, and field trips.

402 *Aquatic Biology* 4 sem. hrs. (Formerly 527)

Ecological study of streams, ponds, and lakes, and the interrelationships of the plants and animals in these habitats. Field trips to varied aquatic habitats and aquatic field stations in the area will be required as part of the course.

404 *Seminar in the Teaching of Biology* 1 sem. hr.

Techniques and aids for successful biology teaching in secondary schools and colleges. Students will be required to participate in the activities of the seminar by giving reports, preparing demonstration materials, or illustrating special teaching techniques.

416 *Cell Biology I—Cytology and Cellular Physiology* 5 sem. hrs.

Morphology, physiology, and biochemistry of the cell with emphasis on the functional aspects of submicroscopic structure and the principles of cytochemistry. Topics considered include: energy conversions, temperature, cell environment, pH, intermediary metabolism, physicochemical organization of protoplasm, active transport, enzyme properties, radiation effects, isotopes, bioelectric phenomena, and methods of ultrastructure investigation. Lecture and laboratory.

419 *Cell Biology II—Advanced Genetics* 5 sem. hrs.

Topics of major interest in modern and classical genetics. Lecture and laboratory.

BOTANY

320 *Plant Pathology* 4 sem. hrs. (Formerly 523)

Taxonomy and life cycles of the fungi causing plant diseases. A study of recent literature in phytopathology is included. Lecture and laboratory.

331 *Plant Taxonomy I—Seed Plants* 3 sem. hrs.

Plant classification with emphasis on the taxa of higher plants. Lecture and laboratory.

332 *Plant Taxonomy II—Lower Plants* 3 sem. hrs.

Classification of plants, excluding the seed plants. Lecture and laboratory.

333 *Comparative Plant Morphology* 3 sem. hrs.

Survey of the plant kingdom from the standpoint of comparative morphology as illustrated by selected plant types, with particular emphasis on evolutionary tendencies. Lecture and laboratory.

426 *Plant Physiology* 4 sem. hrs.

(Formerly 521)

Recent advances in plant physiology and their application to teaching and to the improvement of agriculture. A study of the literature is included.

433 *Plant Anatomy and Histology* 3 sem. hrs.

Development and function of organs, tissues, and cells of vascular plants. Examination of recent experimental studies of external and internal structure of vascular plants. Lecture and laboratory.

434 *Mycology—The Higher Fungi* 3 sem. hrs.

Life cycles, their relationship with each other and the environment, and techniques of isolation, cultivation, and experimentation for the Fungi Imperfecti and the Basidiomycetes. Lecture and laboratory.

HEALTH

340 *Administration of School Health* 3 sem. hrs (Formerly 412)

Administration and organization of school health education programs. Lecture.

440 *Epidemiology* 3 sem. hrs.

Principles of the epidemiologic method applicable to infectious and non-infectious disease. Etiologic agents, pathogenesis, host response, control procedures, and diagnostic survey and laboratory methods of infectious disease. Selective illustrations from deficiency diseases. Prerequisite: Bacteriology 260. Lecture.

MICROBIOLOGY

360 *School and Community Sanitation* 3 sem. hrs. (Formerly 411)

Microbiology as applied to community water supply and waste disposal, stream pollution, swimming pools, milk and milk products, food and its distribution, and air pollution. Laboratory includes determination of biochemical oxygen demand, color and spectrophotometric determination of residual chlorine, as well as field observation of typical water and sewage installations. Lecture and laboratory.

464 *Microbiology I—Mycology—The Lower Fungi* 3 sem. hrs.

Morphology, life cycles, cytology, and morphogenesis of the lower fungi, including Myxomycetes, Phycomycetes, and some Ascomycetes, with emphasis on isolation, cultivation, and experimental research on these organisms. Lecture and laboratory.

465 *Microbiology II—The Algae* 4 sem. hrs.

Taxonomy, morphology, anatomy, and physiology of the algae with special emphasis on species common to Illinois.

466 *Microbiology III—Bacterial Physiology* 5 sem. hrs.

Fundamental concepts and techniques of bacteriology. Anatomical, nutritional, and metabolic properties. Microbiological assays. Prerequisite: Bacteriology 261 and chemistry through quantitative analysis and organic. Lecture and laboratory.

467 *Microbiology IV—Microbial Genetics and Physiology of Virulence* 5 sem. hrs.

Heredity in microorganisms, virulence as a physiological problem, and the viruses as a branch of microbiology. Prerequisite: Bacteriology 261 and chemistry through quantitative analysis and organic. Lecture and laboratory.

ZOOLOGY

381 *Applied Human Anatomy* 3 sem. hrs. (Formerly 345)

For those preparing to teach special classes of physically-handicapped children. The educational implications are stressed. Lecture and laboratory. Prerequisite: Biological Sciences 182.

382 *The Eye—A Laboratory and Clinical Study* 2 sem. hrs. (Formerly 347)

Anatomy and physiology of the eye. Observations and demonstrations in the school and clinic for the detection and care of eye disorders. Lecture and laboratory.

Prerequisite: Biological Sciences 182.

383 *Parasitology* 4 sem. hrs.

Morphology, life histories, host-parasite relationships and methods of control of arthropod, helminth and protozoan parasites of man, domestic and wild animals. Parasitological techniques and methods of laboratory diagnosis will be included. Lecture and laboratory.

385 *Physical Defects—Survey and Rehabilitation* 3 sem. hrs.

Physical defects of handicapped children and procedures used in their rehabilitation. For those preparing to teach special classes of physically-handicapped children. Includes special services, equipment, and activities used in the rehabilitation programs. Lecture and laboratory. Also offered as Health and Physical Education 385. Prerequisite: Biological Sciences 381.

391 *Entomology* 4 sem. hrs. (Formerly 422)

Anatomy, physiology, and embryology of insects. Lecture and laboratory.

392 *Histology and Embryology* 3 sem. hrs. (Formerly 317)

Introduction to organ structure and development. Lecture and laboratory. Prerequisite: Biological Sciences 192.

394 *Protozoology* 4 sem. hrs.

Morphology, physiology, reproduction and life cycles, heredity, classification, habitats and ecology, method of collection, cultivation and cytological techniques of protozoa, as well as the history of protozoology. Lecture and laboratory.

395 *Ornithology* 3 sem. hrs.

Morphology, anatomy, ecology, life history, and identification of birds. Lecture, laboratory, and field work.

481 *The Sensory Organs* 3 sem. hrs. (Formerly 505)

Anatomy and physiology of sense perception organs of the body, with special attention given to speech, hearing, and sight saving.

482 and 483 *Human Anatomy and Physiology* Each 3 sem. hrs. (Formerly 550 and 551)

Biological basis for those who need an understanding of the human body in the various professionalized educational fields. The laboratory work is based directly upon the human body.

- 484 *Human Development and Behavior—Its Biological Basis* 3 sem. hrs. (Formerly 522)
 Basic cytology, genetics, developmental anatomy and physiology, endocrinology, neurology, and related nutrition for students in education and psychology, health education and special education. The demonstrations are based upon anatomical materials from the human as well as the animal body.
- 492 *Advanced Embryology and Histology* 4 sem. hrs.
 Fetal physiology, organ formation, and differentiation of embryonic cells into adult types. Lecture and laboratory.
- 493 *Experimental Zoology* 3 sem. hrs.
 Introduction to techniques of scientific investigation in zoology. Lecture and laboratory.
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- 499 *Thesis* 4 sem. hrs. (Formerly 599)

BUSINESS EDUCATION

TEACHING STAFF

Head of the Department: Lewis R. Toll. Office: Cook Hall 103.

Professors: Raymond W. Esworthy, Harold F. Koepke, Margaret K. Peters, Lewis R. Toll.

Associate Professors: Doris H. Crank, H. Earle Reese.

- 310 *Consumer Business Problems* 2 sem. hrs. (Formerly 410)
 Application of business knowledge to the solution of practical problems of the consumer. Emphasis on improved living standards through better management of personal finances.
- 311 *Fundamentals of Insurance* 3 sem. hrs. (Formerly 411)
 Principles of insurance and fundamental applications to individuals, business establishments, and governmental institutions. Life, casualty, fire, automobile, accident and health, and marine insurance.
- 330 *Governmental Accounting* 3 sem. hrs. (Formerly 430)
 Procedures, accounts, and reports of governmental agencies; the solution of problems embracing the practical application of fund accounting and the interpretation of financial reports of various government units. Prerequisite: 5 semester hours of accounting.
- 331 *Cost Accounting* 3 sem. hrs. (Formerly 431)
 Elements of production costs, including materials, labor, and overhead or burden; the job-cost, the process-cost, and the standard-cost systems; the solution of problems embracing the practical application of costing methods, formulas, and standard costs. Prerequisite: 9 semester hours of accounting.
- 332 *Auditing* 3 sem. hrs. (Formerly 432)
 Verification, analysis, and interpretation of accounting records. Auditing principles and procedures are applied to the audits of cash; securities and investments; receivables, inventories, assets, and liabilities; balance sheet; profit and loss statement; and working papers. Prerequisite: 12 semester hours of accounting.

340 *Problems in Office Management* 2 sem. hrs. (Formerly 440)

Detecting, analyzing, and solving problems applicable to large or small offices. Principles of office organization and operation are discussed and applied to cases under consideration. Individual and committee investigations are conducted, and selected office managers are called upon to serve as resource persons.

356 *Business Finance* 3 sem. hrs.

Problems and methods of financing business, function of banking, business risks as an influence on financial management, and interpretation of the security markets. Prerequisite: Social Sciences 171 or Business Education 252.

357 *Retailing* 2 sem. hrs.

Organization and operation of retail stores and service establishments of various types with some consideration of the application of the content to distributive education and general business subjects of the high school. Whenever feasible, the local business community will be used as a laboratory for the observation and analysis of retailing practice. Prerequisite: Social Sciences 171 or Business Education 252.

360 *Business Data Processing* 3 sem. hrs.

Business data processing involving the fundamental characteristics of mechanical and electronic systems and their application to business. Prerequisite: 6 semester hours of accounting.

370 *Purchasing Policies and Procedures* 3 sem. hrs.

Purchase of materials, supplies, and equipment as a major business function. Organization for purchasing, internal requisitioning, and stock control. Basic procurement principles, processes, and problems in industrial, governmental, and institutional organizations. Actual business cases analyzed.

400 *Seminar in Business Education* 2 sem. hrs. (Formerly 500)

Consideration of business education problems of greatest concern to the group and to the individual student by means of conferences and informal discussion.

402 *Administration and Supervision of Business Education*
2 sem. hrs. (Formerly 502)

Fundamental concepts and techniques needed by administrators, supervisors, department heads, and teachers of business education in planning and carrying out realistic programs of business education in junior and senior high schools and junior colleges.

404 *Occupational Guidance in Business Education*
2 sem. hrs. (Formerly 504)

Methods by which a secondary school teacher may assist students in getting the type of training adapted to their interests, abilities, and aptitudes as an aid to their making satisfactory adjustments in business occupations.

406 *Readings in Management* 2 sem. hrs.

Selected readings from the literature of general management, including recognized classics in the field and other significant contributions of both a theoretical and technical nature. Prerequisite: 15 semester hours in accounting and/or business administration.

430 *Improvement of Instruction in Bookkeeping and
General Business* 3 sem. hrs. (Formerly 530)

Bookkeeping subjects consisting of first-and second-year bookkeeping, personal record keeping, general clerical practice, and clerical office practice. General

business subjects will consist primarily of general business training, business law, business arithmetic, commercial geography, and consumer education. The instructor will draw from his own experiences, from those of the group, from the writings of authorities in the field, and occasionally from the ideas of visiting lecturers and demonstrators. Prerequisite: teaching experience or student teaching.

440 *Improvement of Instruction in Secretarial Subjects* 3 sem. hrs. (Formerly 540)

Secondary school subjects included are vocational typewriting, personal typewriting, shorthand, transcription, business English, and secretarial office practice. The instructor will draw from his own experiences, from those of the group, from the writings of authorities in the field, and occasionally from the ideas of visiting lecturers and demonstrators. Prerequisite: teaching experience or student teaching.

450 *Improvement of Instruction in Distributive Education* 3 sem. hrs. (Formerly 550)

Organization, administration, and supervision of programs of distributive education, with emphasis on the cooperative part-time programs. Methods, materials, and equipment in teaching salesmanship, retailing, and other courses of training for distributive occupations.

457 *Problems in Retail Store Management* 2 sem. hrs.

Investigation and critical discussion of problems frequently encountered in managing a retail store, with special attention given to the small store. Principles and procedures of store management developed as they relate to the cases chosen for analysis. Visits to stores and participation by selected store managers in group discussions are regular parts of the course.

499 *Thesis* 4 sem. hrs. (Formerly 599)

EDUCATION AND PSYCHOLOGY

TEACHING STAFF

Head of the Department: Frank N. Philpot. Office: Schroeder Hall 406.

Professors: Rose B. Buehler, William I. DeWees, Claude M. Dillinger, Cecilia J. Lauby, Elden A. Lichty, William R. Lueck, Stanley S. Marzolf, Robert H. Moore, Helen M. Nance, Stanley K. Norton, Harold R. Phelps, Frank N. Philpot, John L. Reusser, Mary C. Serra, Herman R. Tiedeman.

Associate Professors: E. Scott Blankenship, R. Elizabeth Brown, Valjean M. Cashen, Leo E. Eastman, Walter H. Friedhoff, William J. Gnagey, Ivo P. Greif, Dean S. Hage, Charles R. Hicklin, Benjamin C. Hubbard, Richard E. Hulet, Homer T. Knight, Clarence H. Kurth, Ralph A. Meyering, Murray L. Miller, Leon T. Ofchus, Donald M. Prince, Morton D. Waimon.

Assistant Professors: Dorothy H. Carrington, William Frinsko, John W. Gillis, Henry J. Hermanowicz, Normand W. Madore.

The following courses are recommended as electives in the community college curriculum: Education 360, 470, 471, 473, Psychology 334.

In addition to programs at the master's level, the department offers work in school administration leading to the following degrees: Specialist in Education, Doctor of Philosophy, and Doctor of Education. The program in school administration has as its major purpose the preparation of superintendents,

principals, and other administrative personnel. Applicants for the programs leading to the Specialist in Education and doctoral degrees must have two years of experience in education. University requirements for these programs are described on pages 20-24.

EDUCATION

301 *Laboratory Reading Methods* 3 sem. hrs. (Formerly 205)
Techniques of diagnosis and instruction for special cases of severe reading disability. Deals with physical, mental and emotional maladjustments and teaching errors which may become causal factors in reading disabilities. Provides opportunity for preparation of instructional materials and for laboratory work with children having serious reading difficulties. Three double periods per week. Prerequisite: Education 103

331 *Readings in Educational Research* 1 sem. hr.
(Formerly 405 and 406)
Study and evaluation of current research dealing with the student's major field of interest. The course acquaints the student with research in many phases of education from the nursery school through the community college.

333 *The Junior High School* 2 sem. hrs. (Formerly 410)
Function of the junior high school; characteristics and needs of early adolescents; articulation with the elementary and high schools; traditional and core curriculums; organization, administration, and evaluation of programs for early adolescents.

334 *Public Relations for Education* 2 sem. hrs. (Formerly 431)
Analysis of the need for public relations and study of programs for education. Wide use of visual aids and community resources. Work of the individual student will focus on practical problems related to his area of specialization. Ways of evaluation will be included.

335 *History of Education* 3 sem. hrs. (Formerly 460)
Development of educational systems and programs. Emphasis on the historical perspective of modern educational problems.

345 *Special Classes for the Trainable* 2 sem. hrs. (Formerly 342)
Organization of classes, teaching methods, behavior and progress records, reports, and home-school-community relations.

346 *Education for the Mentally Retarded* 2 sem. hrs.
(Formerly 343)
Study of objectives, curriculum content, methods, and organization of work in classes of mentally-retarded children. Emphasis on case records.

347 *Problems of the Brain Injured* 2 sem. hrs. (Formerly 451)
Problems of diagnosis, psychological evaluation, and educational adjustments needed by the cerebral palsied. Relationship to other therapies. Observation and planned participation in a group of cerebral palsied. For experienced teachers who wish to specialize in working with the cerebral palsied.

348 *Education of Gifted Children* 2 sem. hrs. (Formerly 453)
Organization of the program for the education of gifted children. Methods of identification, curriculum adjustments, creative activities, guidance, appraisal of progress, and parent relationships. For teachers, administrators, and personnel workers.

349 *Education of the Physically Handicapped* 2 sem. hrs. (Formerly 345)

Adaptation of the curriculum; coordination of educational and medical programs; preparation of case records; special school equipment; survey of institutions and agencies interested in the physically handicapped; observations in orthopedic rooms and hospital schools. For teachers of crippled, cerebral-palsied, and otherwise physically-handicapped children except in speech, hearing, and vision.

350 *Education of the Partially Seeing* 2 sem. hrs. (Formerly 344)

Selection and placement of pupils; organization of the program; methods of sight conservation; special equipment; case records; observation in clinic.

351 *Education of the Blind* 3 sem. hrs. (Formerly 349)

Nature and needs of the blind. Interpretation and evaluation of medical, social, psychological, and educational records and reports. Types of educational programs. Methods and materials for blind children of school age.

352 *Braille Reading and Writing* 2 sem. hrs. (Formerly 348)

Designed to develop mastery of braille. Use of the braille writer and other devices for writing. Procedures for teaching braille. Preparation and use of braille materials for purposes of communication and evaluation.

353 *Education of the Deaf* 2 sem. hrs.

Oral, manual, and combined methods of teaching the deaf with a philosophical and historical background of each. The effect of hearing loss on the understanding of language and the implications for the education of deaf children.

354 *Speech for the Deaf* 3 sem. hrs.

The development of oral communication in hearing children compared to deaf children. Methods of developing speech in the pre-school and school age deaf child using the visual, auditory, kinesthetic, and tactile approaches. Observations and participation in classes for the deaf. Prerequisite: Education 353.

355 *Language and School Subjects for the Deaf* 3 sem. hrs.

Principles and techniques of teaching language to the pre-school and school age deaf child. Leading systems of teaching language to the deaf. Methods of teaching reading, arithmetic, social studies, science, and other school subjects to the deaf. Prerequisite: Education 353.

360 *Introduction to Guidance* 2 sem. hrs. (Formerly 427)

Aims, needs, development, and present status of guidance in secondary schools. Means of learning individual capacities, special abilities, and interests. The giving of vocational information. Emphasizes the role of the classroom teacher as well as the organization and administration of guidance activities.

399 *Student Teaching* 1-10 sem. hrs. (Formerly 210 and 215)

Directing the learning of pupils; participating in school and community activities; assuming full responsibility for a group of learners under the supervision of an expert teacher. Assignments are made on the basis of the student's area of specialization. High school student teaching assignments include work in special methods in the subjects taught. Prerequisite: 1. Education 216 for high school student teaching or one of Education 202, 203, or 204 for student teaching in the elementary school and special education. 2. Satisfactory preparation in the area of specialization. 3. Approval of the Director of Professional Laboratory Experiences. 4. One semester of residence, except in special education for which eight semester hours of residence work are required.

401 *Analysis and Correction of Reading Disability* 3 sem. hrs. (Formerly 407)

Standardized and informal tests, analysis of test results, and differentiated reading programs based on test findings. Opportunities are provided for administering informal and standardized instruments designed to determine the extent of retardation and the type of reading disability. Practice is given in analyzing test findings and in recommending psychological and pedagogical procedures that will provide for the specific needs of subjects with reading difficulties. Prerequisite: Education 103; 301 or teaching experience.

402 *Recent Research in Reading* 3 sem. hrs. (Formerly 408)

Analysis of recent research in reading at the elementary, secondary, and college levels together with its implications in the areas of modified practices in the teaching of reading, materials of instruction, and teacher preparation.

403 *Guiding Learning in the Elementary School* 3 sem. hrs. (Formerly 505)

Methods of making practical adaptations in the school program to aid the physical, emotional, and educational development of individual children within a school group; selection and organization of materials and methods of individual instruction in the different subject areas; development and interpretation of case studies; practice in the techniques of recognizing and diagnosing the specific needs of children in the elementary school. Prerequisite: Education 102 or Psychology 115 and any assigned by the student's academic adviser.

430 *Workshop in Education* 2-6 sem. hrs. (Formerly 400)

For experienced professional workers in the field of education. Emphasis given to serving superintendents, principals, supervisors, and teachers who are presently responsible for some aspect of curriculum study and/or program improvement in their schools. Primary concern with analysis and solution of practical and on-the-job educational problems. Procedure: exact statement of problems for study; critical examination of the literature on research and existing practice in the problem to be followed by reports, discussion, and conclusions. Prerequisite: teaching experience.

431 *Individualized Professional Experience* 2 or 3 sem. hrs. (Formerly 442)

Provides a wide variety of experiences to meet the individual needs of graduate students by working with elementary and high school students, parents, staff members, and school and community groups. Includes other professional and social experiences adapted to the needs of the individual graduate student.

432 *Philosophy of Education* 3 sem. hrs. (Formerly 510)

Social forces and schools of philosophical thought which have contributed to education and which are influencing current educational practices. To help the student achieve a functional educational philosophy applicable in his teaching situations.

433 *Audio-visual Program of the School* 3 sem. hrs. (Formerly 572)

Purchasing equipment and organizing a program; setting up standards of selection and evaluation; supervising the use of all types of audio-visual instructional materials; analyzing psychological and educational research with audio-visual implications; studying the theory of communication through verbal and multi-sensory media. Introduction to cartograms, collages, pictographs, analoglyphs, dioramas, macrophotography, bradykinetics.

434 *Educational Statistics* 3 sem. hrs. (Formerly 503)

Basic statistics for workers in education and psychology. Advanced study of measures of central tendency, including the mean, median, and mode, as well as of measures of dispersion. Correlation techniques will be studied extensively as will also newer statistical methods. Emphasis will be placed on the use of statistical techniques studied and on statistical interpretation. Prerequisite or concurrent registration: Education 475.

445 *Curriculum Development for the Mentally Retarded*
3 sem. hrs. (Formerly 455)

Designed to aid students in the development of curriculum and methods suited to their particular problems with the mentally retarded. For principals, supervisors, and teachers now engaged in the field, or those having a background in psychology and mental deviation, contemplating the field. Attention given to organization and curriculum at elementary and secondary levels; methods and materials adapted to age groupings; pupil guidance and evaluation; study of job outlets and work try-outs or other subjects of student's choice.

446 *Workshop for Teachers of Partially Seeing* Summer Only
3 sem. hrs. (Formerly 459)

Individual teaching problems. Review of recent educational literature and research in impairment of vision, adaptation of instructional materials to the conservation of vision, curriculum adjustments, personality problems and guidance. For teachers experienced in work with partially seeing.

447 *Administration of Special Education* 2 sem. hrs.
(Formerly 550)

Methods of discovering exceptional children. Organization and administration of special classes and special rooms. Teacher preparation, legal aspects, equipment, transportation, cooperating agencies, and public relations in the education of exceptional children.

448 *Instructional Procedures for Maladjusted Pupils*
3 sem. hrs. (Formerly 552)

Organizing and administering laboratory procedures for maladjusted pupils and educationally retarded. Emphasis on reading abilities. Selection and use of learning materials. Research pertaining to personality factors as related to school success. Supervised laboratory work with children. Prerequisite or concurrent registration: Education 102 and 301.

470 *Teaching in the Community (Junior) College*
2 sem. hrs. (Formerly 465)

Techniques and methods of teaching on the community college level; problems of articulating the community college and the high school; special qualifications needed for the community college teacher, his preparation and training; the use of examinations, marks, and records; specific problems and methods of the classroom peculiar to the various teaching fields.

471 *Community (Junior) College Administration*
2 sem. hrs. (Formerly 500)

Introduction to the administration and organization of junior colleges. Relationships with boards of control, community, administrators, faculty, and students. Legal aspects, records, financial support, and public relations. Students who have had Education 481 and/or the former 541 may not take this course for credit.

472 *The Community (Junior) College* 3 sem. hrs. (Formerly 564)

History and development, functions, curricula, instruction and personnel problems in the community college. The community college is studied in relation to other units of the educational system.

473 *Seminar in the Community (Junior) College* 2 sem. hrs. (Formerly 566)

Specific problems related to the community college, such as problems of guidance and personnel work; sponsorship of out-of-class activities; improvement of instruction; and curriculum problems. The exact content of the course may vary from semester to semester. The problems will be selected, in part, according to the needs and interests of the students. Prerequisite: Education 472 or experience in teaching in the junior college.

475 *Introduction to Research* 3 sem. hrs. (Formerly 501)

Selection of a research problem, collection of data, types of research, the research report, and use of the library in connection with the research problem. Elements of statistics are introduced. Emphasis is given to understanding and interpreting frequently used statistical concepts. Provides a background for the preparation of the thesis. Enables the student to become an intelligent consumer of the products of educational research.

476 *Seminar in Curriculum Construction* 3 sem. hrs. (Formerly 512)

Principles and practices of curriculum construction. Extensive practical experience in constructing a course of study. Effect of research upon the curriculum as a whole and in different subjects; techniques for curriculum building from the nursery school through the community college; critical examination and evaluation of city, county, and state courses of study; techniques of conducting a program of curriculum study, revision, and evaluation.

477 *Supervision of Instruction* 2 sem. hrs. (Formerly 520)

Principles underlying the improvement of instruction through supervision. Emphasizes the following supervisory needs: (a) an understanding of the leadership role; (b) an understanding of recent research concerning pupils, including learning; (c) an understanding of group dynamics and (d) an understanding of action research and its application. Techniques for giving the understandings practical application are considered. Means are proposed for the evaluation of pupils, teachers, supervisors, and supervisory practices.

478 *Legal Bases of Education* 3 sem. hrs.

The conceptual and structural design of public education and the American legal system. Includes study of constitutional law, statutory enactments, and judicial decisions, with emphasis upon case law. Authority of the states; local school districts, powers and duties of district officers; legal status of parents and pupils; liability of school districts and officers; use of school property; school support and finance; the school program; and Illinois school law.

479 *Financial Bases of Education* 3 sem. hrs. (Formerly 534)

Financial accounting and reporting, budgeting, unit costs, depreciation, insurance, school revenues, and other problems of school finance.

480 *School Plant Planning* 3 sem. hrs. (Formerly 535)

School sites, buildings, and equipment with emphasis on planning of building programs. Includes visitation of buildings.

481 *Administration and Organization of Schools* 3 sem. hrs. (Formerly 531)

Selection, retention, and improvement of teachers. Curricula, records, school law; interpreting the school to the public, and other problems taken from the necessary experiences of public school administrators.

482 *Administration as a Science and an Art* 3 sem. hrs.

Second course in basic sequence of an administration core; sociological and psychological interpretations of administration, with emphasis upon human relations and leadership. Development of understandings, values, concepts through study of theory and its practical application in the educational setting. Decision making; administration and the behavioral sciences, theories of administration, power and authority, motivation and morale, organization, leadership, and research issues in administration. Prerequisite: Education 481.

484 *Superintendent and Central Staff* 2 sem. hrs.

One of a series of courses assuming a broad common base in general administration. Development of knowledge, responsibilities, and competencies required of chief administrative officer, and in the case of larger districts, his central staff. Emphasizes district-wide policy making, curriculum development, improvement of instruction, effective leadership of personnel, community relations, and efficient operational procedures. Designed to develop a high degree of understanding and skill in the administration of a school district.

485 *The Principalship* 2 sem. hrs.

One of a series of courses assuming a broad common base in general administration. Development of knowledge and competencies of the building principal as an instructional leader. Offered as a specialized course for those having a basic preparation in general administration.

486 *Management of Educational Funds* 2 sem. hrs.

One of a series of courses assuming a broad common base in general administration. Development of high competence and deeper concepts of school finance, with particular emphasis on the management phase. Includes management of all school funds, cash and accrual budgeting, financial accounting, financial statements and reports, safeguards, debt service, internal accounting, and management of special problems of finance. Prerequisite: Education 479.

487 *Evaluation Techniques* 2 sem. hrs. (Formerly 518)

Basic principles underlying the evaluation of school work. Includes development, use, and improvement of standardized and teacher-made tests and self-rating devices. Stresses interpretation of test data and uses of test results. Students may develop evaluation programs and undertake projects in their major fields.

488 *All-School Activities* 2 sem. hrs. (Formerly 515)

Organization of life in the elementary school in ways that give practice in democratic relationships and procedures; parent and pupil participation in school planning; purposes and procedures for developing such all-school activities as assemblies, school paper, clubs, school council, uses of radio and recreational program. School participation in suitable community projects.

489 *Field Work in School Administration* 4-6 sem. hrs.

Provides responsibilities and experiences in the study of administrative problems in school-community setting. Students will actually develop for a school system a survey or study of a significant problem. In addition to its clinical aspect, the student will emphasize intellectual and creative exploration of major educational issues, utilizing the total field of education and, where relevant, related disciplines.

497 *Professional Laboratory Experience* 3 sem. hrs. (Formerly 542)

The role of laboratory experiences in teaching and learning. Significant trends, philosophies, and programs of teacher education. Personnel responsible for supervision of student teachers, directing observation and participation activities, as well as studies of individuals. For experienced teachers, supervisors of instruction, and school administrators.

498 *Internship* 3-8 sem. hrs. (Formerly 595)

Opportunities to work with principals, superintendents, teachers, and lay groups in public school situations. Of special benefit to inexperienced students and for those preparing for administrative work in public schools. Assignments are made by the Dean of the Graduate School on recommendation of the student's academic adviser at least two months prior to beginning internship.

PSYCHOLOGY

301 *Child Psychology* 3 sem. hrs. (Formerly 421)

Study of available research on the motor, mental, and emotional development; growth of understanding; personality of children during pre-adolescent and adolescent years; application to problems of guidance.

330 *Experimental Psychology* 3 sem. hrs. (Formerly 225)

Simple experiments in the psychology laboratory to give appreciation of the problems of control in the scientific study of behavior. Two lecture and one laboratory period per week plus additional laboratory assignments. Prerequisite: Psychology 111.

331 *Psychological Measurement* 3 sem. hrs. (Formerly 229)

Use and interpretation of psychological test results with emphasis on the quantitative approach. Group and individual tests are studied and demonstrated. Students have practice in giving, scoring, and interpreting standardized tests. Meets the requirements of psychological testing for students in special education.

333 *Readings in Psychological Research* 1 sem. hr.
(Formerly Ed. 405 and 406)

Study and evaluation of current research dealing with the student's major field of interest. The course acquaints the student with research in many phases of psychology from the nursery school through the community college.

334 *Research Projects in Psychology* 3 sem. hrs. (Formerly 401)

Appreciation and understanding of the experimental and statistical approaches to the study of the learning human being. Laboratory work will be the basic procedure. Prerequisite: Psychology 115.

345 *Case Work in Behavior Problems* 2 sem. hrs. (Formerly 235)

Making case studies: interviewing, using records, and case reporting. To be taken with student teaching. Prerequisite: Psychology 232.

346 *Psychology of Exceptional Children* 2 sem. hrs.
(Formerly 327)

Behavior of children who deviate from the usual because of physical, mental, or other handicaps. Prerequisite: Psychology 232 and 331.

348 *Mental Retardation* 3 sem. hrs.

Introduction to medical, psychological, sociological, and educational aspects of mental retardation. Prerequisite: Education 102 or Psychology 115.

349 *Psychology of the Mental Deviate* 3 sem. hrs. (Formerly 411)
Personality, general behavior patterns, and educational possibilities of mentally deficient and gifted children. Prerequisite: Education 102 or Psychology 115.

431 *Learning* 3 sem. hrs. (Formerly 422)
Experimental data bearing on the problem of human learning; modern theories of learning; an attempt to integrate these theories in a consistent viewpoint of value to the teacher.

432 *Motivation* 2 sem. hrs. (Formerly 425)
Experimental study of drives, social motives, theories of motivation, practical applications.

433 *Diagnosis and Counseling* 3 sem. hrs. (Formerly 511)
Training in interviewing, making case histories, clinical diagnosis, and instruction in some of the basic techniques in psychotherapy.

434 *Individual Mental Testing* 3 sem. hrs. (Formerly 525)
Training in individual mental testing with emphasis on the Binet and the Wechsler. Prerequisite: Psychology 232.

435 *Introduction to Projective Techniques* 3 sem. hrs. (Formerly 527)
Theory of projective methods and development of competence in the use of selected procedures. Prerequisite: Psychology 432.

436 *Practicum in Diagnosis and Counseling* 3 sem. hrs. (Formerly 532)
Clinical practice in the Psychological Counseling Service. Gives students training in individual psychological diagnosis. Twelve hours per week. Prerequisite: Psychology 433.

437 *Advanced Educational Psychology* 3 sem. hrs.
Retention and forgetting, reading learning, social class influences, intelligence, language, and individual differences. Special emphasis is placed on psychological factors, and recent research with regard to educational practices. Prerequisite: Psychology 115.

460 *Vocational Counseling* 2 sem. hrs. (Formerly 440)
Acquiring and using occupational and educational information. Consideration of job requirements and training opportunities. Developing occupational units. Nature of vocational development. Prerequisite: Education 360.

499 *Thesis* 4 sem. hrs. (Formerly 599)

ENGLISH

TEACHING STAFF

Head of the Department: Victor E. Gimmestad. Office: Schroeder Hall 223.

Professors: Howard I. Fielding, Victor E. Gimmestad, Ruth Henline, Milford C. Jochums, Dale B. Vetter.

Associate Professors: Ferman Bishop, George R. Canning, Merton A. Christensen, John M. Heissler.

Assistant Professors: C. J. Gianakaris, Harry E. Preble.

Majors in this department should take English 300, 310, and fourteen hours of electives of which three should be in the literatures of England or America. It is desirable to take a sequence which leads to concentration in an area such as philology and criticism, literatures of England and America, children's literature, or professional studies in English. A reading knowledge of French or German is recommended.

300 *Methods in Research in English* 2 sem. hrs. (Formerly 400)

Problems peculiar to literary history, English language, and the teaching of English. Students are encouraged to take this course early in their graduate study.

310 *History and Development of the English Language* 3 sem. hrs. (Formerly 401)

Historical approach to the development of the English language. To help student and prospective teacher discover reasons behind the meanings, spellings, syntax, and usage of contemporary English.

311 *Old English* 3 sem. hrs. (Formerly 403)

The elements of Old English grammar, with selected readings.

317 *Nineteenth-Century English Prose* 2 sem. hrs (Formerly 425)

Chief prose writers of the century and their contributions to the thought of the present time.

332 *Nineteenth-Century American Literature* 3 sem. hrs. (Formerly 430)

Concentration upon the great literary figures to the middle of the century, especially those usually taught in high school—Poe, Hawthorne, Emerson, Melville, Longfellow, and Whitman. To show how these men represent important movements in American life and thought.

337 *Literature of the Midwest* 2 sem. hrs. (Formerly 434)

The chief writers of the Midwest, especially Illinois.

370 *Studies in Children's Literature* 3 sem. hrs. (Formerly 470)

Advanced study in children's literature including critical history, evaluation, and selection of significant books particularly from the literary standpoint. Materials for kindergarten through grade eight. Prerequisite: course work in children's literature or proficiency demonstrated by examination.

372 *Problems in Children's Literature* 3 sem. hrs. (Formerly 472)
Advanced study in the broader fields of books for children including work on problems of special interest for individual students. Evaluation based on principles of child growth and development and curricular use. Materials for kindergarten through grade eight. Prerequisite: course work in children's literature or proficiency demonstrated by examination.

375 *Studies in Literature for Adolescents* 3 sem. hrs. (Formerly 475)
Advanced study in literature for adolescents. Evaluation and selection of significant books, and appraisal of recent books. Materials for grades seven through twelve. Prerequisite: one related course (English 272, English 296, Library 214), or proficiency demonstrated by examination.

382 *Literary Criticism* 3 sem. hrs. (Formerly 402)
Survey of critical and esthetic theory designed to aid the prospective teacher in evaluating ancient and modern literature, in broadening and refining literary tastes, and in conveying to the students a knowledge of the purposes of literature.

390 *Recent Research in the Teaching of the Language Arts* 2 sem. hrs. (Formerly 490)
Critical study of current practice and research in the teaching of the language arts in the elementary school.

395 *Problems in the Teaching of English* 2 sem. hrs. (Formerly 492)
Critical examination of current practice and research in the teaching of language, literature, and composition in the high school. To aid the teacher in meeting individual problems.

416 *Eighteenth-Century English Literature* 3 sem. hrs. (Formerly 521)
Emphasis on the works of Dryden, Pope, Swift, Johnson, and Goldsmith. Attention to the development of present-day social and political ideas as portrayed in the writings of the eighteenth century.

418 *Nineteenth-Century English Poetry* 3 sem. hrs. (Formerly 526)
Major literary movements and representative poets of nineteenth-century England.

420 *Studies in Chaucer* 2 sem. hrs. (Formerly 511)
Life of Chaucer as revealed through his active participation in the practical affairs of his time. Careful reading of *The Canterbury Tales*, with attention to the special problems involved in teaching Chaucer effectively in the high school.

422 *Studies in Shakespeare* 3 sem. hrs. (Formerly 519)
An approach to Shakespeare through sources, textual problems, criticism, and modern scholarship. Particular stress on the plays usually read in high school.

424 *Studies in Milton* 3 sem. hrs. (Formerly 516)
Chief prose and poetry of Milton. Some individual study in subjects relevant to Milton and his contemporaries.

434 *American Literature Since 1914* 3 sem. hrs. (Formerly 431)
Wide reading in the works of recent American authors in an attempt to see directions in American thought and expression.

450 *World Literature* 3 sem. hrs. (Formerly 541)
Readings in foreign literature in translation, selected to meet the needs of the student.

487 *Studies in the American Novel* 3 sem. hrs. (Formerly 560)
The novel in the United States with emphasis on the nineteenth and twentieth centuries.

493 *Topics in English* 1-3 sem. hrs.
An intensive, practical refresher course covering one or more aspects of English. A student may enroll in this course for credit more than once, provided that the subject matter covered is not duplicated.

498 *Independent Reading* 2 sem. hrs. (Formerly 598)
For those graduate students who would profit more from directed reading than from an existing course. To be taken only by permission from the head of the department.

499 *Thesis* 4 sem. hrs. (Formerly 599)

FOREIGN LANGUAGES

TEACHING STAFF

Head of the Department: Frank D. Horvay. Office: Schroeder Hall 304.

Professor: Frank D. Horvay.

Associate Professors: Allie Ward Billingsley, Brigitta J. Kuhn, Norman Luxemburg, Henry R. Manahan, Jose A. Rodriguez.

300 *Research in Foreign Languages* 1-3 sem. hrs.
Supervised work in a foreign literature, in comparative language studies, or in educational materials for a foreign language laboratory. Assignments will depend on the preparation and interest of the student. By arrangement with the Head of the Department of Foreign Languages.

FRENCH

301 *French Romanticism* 3 sem. hrs.
Reading of poetry, novels, plays, criticism, stories, and history. Class conducted in French. Prerequisite: French 221, 222.

302 *French Classicism* 3 sem. hrs.
Reading of plays by Corneille, Racine, and Moliere, and of selections from other seventeenth century writers. Class conducted in French. Prerequisite: French 221, 222.

318 *Moliere* 3 sem. hrs.
Major comedies of Moliere, together with some of the farces and comedies ballets.

401 *Readings in Contemporary French Literature*
3 sem. hrs. (Formerly 503)
Trends in contemporary prose, with readings from the novel and the drama.

GERMAN

302 and 303 *Schiller and Goethe* Each 3 sem. hrs.

Classic German literature with emphasis on the dramas of Goethe and Schiller. Lectures, collateral reading, and reports. Prerequisite: Two courses in German beyond 116.

318 *Goethe's Faust* 3 sem. hrs.

A critical study of Parts I and II of *Faust* as literature and as an expression of Goethe's philosophy. Lectures, assigned readings, and reports. Prerequisite: Two courses in German beyond 116.

LATIN

301 and 302 *History of Latin Literature*

Each 3 sem. hrs.

(Formerly 401 and 402)

Development of Latin literature from its beginning to the close of the Republic. Works of the writers of the Empire period. Translation of representative selections.

315 *Horace: Odes and Epodes* 2 sem. hrs.

(Formerly 415)

Translation and the metrical reading of Latin poetry. Life in the Augustan age and Horace's philosophy of life.

316 *Horace: Satires and Epistles* 2 sem. hrs.

(Formerly 416)

Continuation of Latin 315.

317 *Seneca's Tragedies* 2 sem. hrs.

Troades and the *Medea*; the influence of Seneca on later writers. Prerequisite: Latin 118.

318 *Tacitus* 2 sem. hrs.

Agricola and *Germania*. An introduction to the prose of the Silver period. Prerequisite: Latin 118.

319 *Selections from the Letters of Cicero and Pliny*

2 sem. hrs.

(Formerly 417)

Translation of some of the letters of Cicero and Pliny, with special attention to the details of Roman life and manners revealed by them in two periods of Roman history. Study of the letters both as human documents and as literary compositions.

401 *Suetonius' Lives of the Caesars* 2 sem. hrs.

(Formerly 501)

Translation of the biographies of some of the most important of the Caesars and a study of the place of the Caesars in history. Designed to give the teacher of Latin a good historical background.

406 *The Elegiac Poets* 2 sem. hrs.

(Formerly 506)

Readings from the Roman elegiac poets; the influence of these poets upon English and American literature.

410 *Advanced Latin Prose Composition* 3 sem. hrs.

(Formerly 510)

Application of the major principles of Latin grammar and syntax in writing connected discourse based on different Latin authors as a means of developing facility in the use of Latin forms and constructions.

415 *Vergil's Georgics and Eclogues* 2 sem. hrs. (Formerly 515)
Reading of the *Georgics* and *Eclogues* of Vergil; the style of Latin pastoral and didactic poetry.

421 *History of the Latin Language* 2 sem. hrs. (Formerly 521)
Development of the Latin language with attention directed to the grammatical forms and syntactical usage in selected writings of the early classical and post-classical authors. Some treatment of the relation of the various Indo-European languages to each other, the place of Latin and English among these languages, and the history of Latin elements in English.

424 *Problems in the Teaching of Latin* 2 sem. hrs. (Formerly 524)
Aims, subject matter, and methods of the teaching of Latin in the light of new emphases in the high school curriculum. Critical examination of current high school texts, preparation of syllabi and tests, and a study of audio-visual materials available for Latin classes.

SPANISH

301 *Spanish-American Literature* 3 sem. hrs. (Formerly 401)
History of Spanish-American literature from the colonial period to the present day, studied according to nationality. Special emphasis on material suitable for use in secondary schools.

309 *Spanish Phonetics* 2 sem. hrs.
A scientific study of the speech sounds of Castilian Spanish.

332 *Spanish Drama of the Siglo De Oro* 3 sem. hrs. (Formerly 232)
Class and collateral reading of selected plays from the great dramatists of Spain's Golden Age. Prerequisite: Spanish 216.

392 *Problems in the Teaching of Spanish* 2 sem. hrs.
Re-evaluation of traditional methods of teaching Spanish. Examination and evaluation of modern techniques. Problems related to the teaching of Spanish in general. Problems related to specific methods and techniques.

401 *Don Quixote* 3 sem. hrs. (Formerly 501)
Reading of the *Quixote* with special attention to problems of interpretation and literary criticism.

411 *Spanish-American Novel* 4 sem. hrs.
The Spanish-American novel of the nineteenth and twentieth centuries with emphasis on the most characteristic author of each period and each genre.

412 *Leaders in Spanish-American Thought* 4 sem. hrs.
The writers of prose—exclusive of fiction—who have shaped or influenced thought and action in Spanish America during the past two centuries, from the beginning of the movement for independence to the present day.

416 *Spanish Literature Before 1500* 4 sem. hrs.
Introduction to Spanish literature of the *Edad Media*. Intensive and critical study of one or more of the major works of the period.

421 *History of the Spanish Language* 4 sem. hrs.
History of the Spanish language with attention to both external and internal aspects of its development.

422 *Seminar in Contemporary Spanish Literature* 4 sem. hrs.
The generation of 1898 and representative authors of the twentieth century.

499 *Thesis* 4 sem. hrs. (Formerly 599)

GEOGRAPHY

TEACHING STAFF

Head of the Department: Arthur W. Watterson. Office: Schroeder Hall 125.

Professors: Paul J. Brand, Edna M. Gueffroy, Clarence W. Sorensen, Arthur W. Watterson.

Associate Professors: Kermit M. Laidig, James E. Patterson.

Assistant Professors: Else A. Schmidt, Thomas K. Searight, Stanley B. Shuman, John E. Trotter, David L. Wheeler.

300 *Cartography and Graphics* 3 sem. hrs. (Formerly 395)

Graphic representation of statistical data, including compilation and preparation of various types of maps and graphs. Map projections, scales, symbolisms, dot maps, and their use.

306 *Regional and Areal Studies* 1-9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off the campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

310 *Techniques of Field Work* 3 sem. hrs. (Formerly 403)

Techniques of mapping and interpretation of the phenomena of the natural and cultural landscapes. Most of the time in the field doing original study and mapping.

315 *Methods and Concepts in American Geography*
2 sem. hrs. (Formerly 324)

A survey of selected professional publications designed to acquaint the student with the development of basic concepts and methods in American geography. Enables the student to evaluate geographic viewpoints and approaches in research and teaching.

325 *World Population and Resources* 3 sem. hrs. (Formerly 420)

Population growth and resource distribution and their impact on national policy, levels of living, education, and food supply.

335 *Industrial Geography* 3 sem. hrs. (Formerly 405)

Distribution and locational factors influencing distribution of American industries. Relationship of American industries to world industrial patterns.

340 *Climates of the Continents* 2 sem. hrs. (Formerly 401)

Climates of the various continents and associated controls. Analysis of classifications of climate and problems of climatic classification.

- 345 *Problems in Conservation* 3 sem. hrs. (Formerly 412)
Investigation of specific problems in conservation of soils, water, forests, wild-life, minerals, and recreational land. These problems are explored in their complex national, regional, and local contexts.
- 355 *Foreign Field Surveys* 2-8 sem. hrs. (Formerly 410)
Studies of selected rural and industrial districts. Experiences with intensive and reconnaissance types of geographic investigation. Emphasis on participation in actual field surveys as an approach to understanding the lands and peoples of various areas of the world.
- 360 *Organization of Instructional Materials in Geography*
2 sem. hrs. (Formerly 408)
Practical experience in selection and organization of geographic materials for instructional purposes. Basic principles and professional techniques. Nature of distinctly geographic understandings. Individual work in area of student's choice.
- 375 *Economic Geology* 3 sem. hrs.
Earth materials of economic importance. Characteristics and uses of common metallic and nonmetallic minerals and rocks. Prerequisite: Geography 175.
- 400 *Techniques of Geographic Research* 3 sem. hrs. (Formerly 501)
Philosophy of geography that distinguishes it from the other social sciences on the one hand and from the related earth sciences on the other. The study of what constitutes good geographic writing. Training in research, methods and practices in writing.
- 405 *Geography in Education* 2 sem. hrs. (Formerly 505)
Historical development of the science and teaching of geography. Modern geography and its contribution to general education. Evaluation of current teaching materials.
- 415 *Seminar in Urban Geography* 3 sem. hrs. (Formerly 506)
Importance of urban agglomerations and the problems presented by them. A field study of a typical urban center such as Bloomington-Normal, and type studies of the great urban centers in the United States and the world. Attention to the cultural pattern imposed upon the natural landscape features.
- 420 *Physiography of North America* 3 sem. hrs. (Formerly 503)
Physiographic regions of North America. Emphasis placed upon the development of surface features of each area as background for present geographic patterns of that region. One two-day field trip required.
- 430 *Geography of Latin America* 3 sem. hrs. (Formerly 407)
Intensive study of selected areas, with emphasis on settlement patterns, resources, and interregional relations.
- 435 *Geography of Western Europe* 3 sem. hrs. (Formerly 423)
A regional and economic development of the British Isles and continental Europe. Intensive investigations of resource, industrial, agricultural, and population patterns of Europe. Illustrated local units of occupation.

- 445 *Geography of the Middle East* 3 sem. hrs. (Formerly 421)
Survey of the lands and peoples of southern and southwestern Asia. Resource and population patterns of regional and political units.
- 450 *Geography of the Far East* 3 sem. hrs. (Formerly 422)
Lands and peoples of eastern Asia, with emphasis on China and Japan. International, national, and regional characteristics and problems.
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- 499 *Thesis* 4 sem. hrs. (Formerly 599)

HEALTH AND PHYSICAL EDUCATION

TEACHING STAFF (MEN)

Head of the Department: Burton L. O'Connor. Office: McCormick Gymnasium 103A.

Professors: Arley F. Gillett, Eugene L. Hill, Burton L. O'Connor.

Associate Professor: James E. Collie.

Assistant Professor: Paul F. Dohrmann.

TEACHING STAFF (WOMEN)

Head of the Department: Ellen D. Kelly. Office: McCormick Gymnasium 104.

Professors: Bernice G. Frey, Miriam Gray, Ellen D. Kelly, Gwen Smith.

Associate Professors: Barbara C. Hall, Margaret L. Jones.

Students in the curriculum for Secondary and Community College with a major in this department must complete at least fifteen semester hours in Health and Physical Education, including at least two of the following courses: 442, 443, 447, 448. If the student selects the thesis option, the credit for thesis must be in addition to the fifteen hours required.

- 304 *Teaching of Sports Activities* 2 sem. hrs. (Formerly 404)

Teaching methods, officiating, organization, selection and care of equipment, and safety procedures for selected sports usually taught during fall and winter months.

- 305 *Teaching of Sports Activities* 2 sem. hrs. (Formerly 405)

Teaching methods, officiating, organization, selection and care of equipment, and safety procedures for selected sports usually taught during the spring and summer months.

- 321 *The Elementary School Physical Education Program*
2 sem. hrs. (Formerly 402)

Principles and purposes of physical education in elementary schools. Current trends in program planning, recent research, methods of evaluation, school-community cooperation. Prerequisite: Health and Physical Education 221 or 222 or 223.

340 *History of Physical Education* 2 sem. hrs.

The relationship, from ancient to modern times, between physical education and factors in society: economic, political, social, educational, and religious.

341 *Organization and Administration of Physical Education*
3 sem. hrs.

Factors essential to the administration and program development of physical education in elementary and secondary schools.

347 *Evaluation of Motor Performance* 3 sem. hrs. (Formerly 390)

Analysis of motor performance, using objective tests, subjective ratings, and achievement tests. Construction and evaluation of knowledge tests. Basic methods of interpreting test scores.

360 *Dance Techniques* 2 sem. hrs.

Selection of materials for teaching various types of dance; a study of progression in teaching each type; grade placement; practice in perfecting dance techniques. Prerequisite: Health and Physical Education 160.

361 *History of Dance* 3 sem. hrs.

History and development of dance as a cultural medium from primitive times to the present. Understanding of the function of dance in education, and the philosophies and social changes underlying current trends in theatrical and social forms of dance.

362 *Principles of Performance* 3 sem. hrs.

Principles governing public performance in physical education; dance, swimming, gymnastics, and other physical education activities. A survey of costuming, lighting, accompaniment, and related problems in production.

365 *Teaching of Rhythmic Activities* 2 sem. hrs. (Formerly 408)

Evaluation of dance methods for elementary and secondary school situations; familiarity and appraisal of sources of dance materials; practice in advanced techniques in dance; possibilities in dance accompaniment; opportunities for teaching various types of dance. Prerequisite: Health and Physical Education 360.

366 *Studies in Dance* 2 sem. hrs. (Formerly 409)

Kinesiological understanding of movement; theory of dance; creative techniques; progressive experiences in individual and group composition; studies in design, rhythm, and dynamics.

367 *Problems in Dance* 2 sem. hrs. (Formerly 410)

Current problems in the teaching of dance on all levels, in the administration of dance curricula, in the planning and direction of dance recitals and demonstrations, in the organization and supervision of dance clubs and extra-curricular activities.

372 *Camp Experience with Physically Handicapped*
3 sem. hrs. (Formerly 346)

Actual experience as a counselor in a summer camp for physically handicapped children. Conferences and discussions on planning the child's day; general organization of activities, camp equipment, and program. A student may enroll for credit a second time. Prerequisite: Approval of the Director of the Division of Special Education and Head of the Department of Health and Physical Education for Men or Women.

373 *Workshop in Recreation and Camping* 3 sem. hrs. (Formerly 422)

Preparation of materials for use in recreation and camping situations; sources for obtaining materials and information; cooperative work among various departments and organizations. Includes crafts, music, story telling, and dramatics.

383 *Body Mechanics and Corrective Procedures* 2 sem. hrs.

Methods, materials, and activities appropriate for the body mechanics and adapted physical education program in elementary and secondary schools. Prerequisite: Health and Physical Education 282.

384 *Diagnosis and Treatment of Athletic Injuries* 2 sem. hrs.

Designed to familiarize the coach with symptoms of common athletic injuries, their immediate treatment and care. Prerequisite: Health and Physical Education 182.

385 *Physical Defects—Survey and Rehabilitation* 3 sem. hrs.

Physical defects of handicapped children and procedures used in their rehabilitation. For those preparing to teach special classes of physically handicapped children. Includes special services, equipment, and activities used in the rehabilitation program. Lecture and laboratory. Also offered as Biological Sciences 385. Prerequisite: Health and Physical Education 282.

386 *Physical Education and Recreation for Handicapped Children* 2 sem. hrs. (Formerly 445)

Materials and methods involved in planning recreational programs for handicapped children and adolescents. Designed primarily for teachers of exceptional children and physical education. Prerequisite: Health and Physical Education 383 or Psychology 346 and 2-3 hrs. from Health and Physical Education 221, 222, 223, 224, or 321.

403 *Problems in Administration of Sports* 3 sem. hrs. (Formerly 541)

Critical analysis of the current problems that confront the director of physical education in the organization and administration of sports activities with special reference to national, state, and local control.

424 *Supervision of Physical Education* 2 sem. hrs. (Formerly 512)

Practice in the techniques of supervision of physical education in elementary and secondary schools; in-service training of the classroom and physical education teacher; relationships with teachers, administrators, and community.

442 *Foundations of Modern Physical Education* 3 sem. hrs. (Formerly 502)

Functions of modern physical education and the underlying factors which influence it.

443 *Problems in Health, Physical Education, and Recreation* 2 sem. hrs. (Formerly 501)

Consideration of current problems in these fields as they affect the teacher of physical education; guidance in individual and group solution of selected professional problems.

- 447 *Evaluation, Techniques in Physical Education* 3 sem. hrs. (Formerly 590)
 Historical background of measurement in physical education; selection and evaluation of available measures; statistical techniques commonly used in physical education; construction and uses of tests; administering the testing program; interpretation and application of results. Prerequisite: Health and Physical Education 390.
- 448 *Seminar in Health, Physical Education, and Recreation* 2 sem. hrs. (Formerly 500)
 Reports and evaluation of selected research studies, proposed problems, and theses plans; review of recent writings; practice in professional discussions and in committee projects.
- 449 *Selected Studies in Health and Physical Education* 1-6 sem. hrs. (Formerly 400)
 Current problems in the field of health and physical education intensively studied to aid the physical education instructor or athletic coach in adjusting to changing needs of elementary or secondary schools.
- 472 *Camping Administration* 2 sem. hrs. (Formerly 524)
 Functions and principles of camp administration in organizational and private camps.
- 475 *Organization and Administration of Recreation* 3 sem. hrs. (Formerly 520)
 Factors concerning the organization and administration of a recreation program; course designed to meet the needs of the administrators of town, community, or school recreational programs.
- 481 *Applied Physiology* 2 sem. hrs. (Formerly 504)
 Application of human physiology to the teaching of physical education; the effects of exercise on the heart, lungs, circulation, and respiration, discussion of current studies pertinent to tests of physical efficiency.
- 482 *Mechanical Analysis of Sports* 2 sem. hrs. (Formerly 506)
 Principles of physics applied to body movement; analysis of body positions and modes of locomotion; muscular and mechanical analysis of selected sports skills.
- 483 *Advanced Corrective Procedures* 2 sem. hrs. (Formerly 508)
 Recognition of postural deviations and muscle weaknesses by isolating muscle action in selected testing positions; laboratory practice in postural examination and correction. Prerequisite: Health and Physical Education 383.
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- 499 *Thesis* 4 sem. hrs. (Formerly 599)

HOME ECONOMICS

TEACHING STAFF

Head of the Department: Florence Davis. Office: Industrial Arts Building 102.

Professors: Florence Davis, Blossom Johnson.

Associate Professor: Jacqueline Q. Karch.

301 *Evaluation in Home Economics* 2 sem. hrs. (Formerly 401)
Examination of various concepts of evaluation and basic principles involved. Study of methods and techniques. Opportunity to work on individual problems.

304 *Curriculum Development in Home Economics*
3 sem. hrs. (Formerly 404)

Principles of curriculum development as applied to home economics. Attention given to organization, methods, materials, and evaluation in relation to type of program and age level. Opportunity to work on individual or group problems.

313 *Food Customs Around the World* 2 sem. hrs. (Formerly 213)
An appreciation course considering the food customs of other nations and how they have influenced American meal patterns. Includes laboratory preparation.

316 *Food Investigations* 3 sem. hrs.
Opportunity is given the student to do preliminary research into various cookery problems according to needs and interests. Evaluation of present accepted methods is challenged and revised. Prerequisite: Home Economics 111 or 113.

320 *Demonstration Cookery* 2 sem. hrs. (Formerly 220)
Development of desirable techniques and standards for the use of the demonstration method of presentation of food preparation. Critical evaluation of individual and team demonstrations suitable for use in teaching, club work, and adult education classes. Prerequisite: Home Economics 113.

322 *Problems in Clothing* 3 sem. hrs.
Economics of clothing; children's clothing. Advanced construction experiences including pattern making or draping. Prerequisite: Home Economics 124.

323 *Advanced Textiles* 2 sem. hrs.
Survey of recent developments in the textile field, particularly the man-made fibers and their products. Attention given to the textile market situation's significance to the consumers. Prerequisite: Home Economics 120.

401 *Supervision of Student Teaching in Home Economics*
3 sem. hrs. (Formerly 501)
Critical survey of the objectives of the student teaching program, responsibilities of the supervising teacher, and techniques of supervision. Practical experience in the preparation of supervisory materials.

402 *Seminar in Home Economics* 2 sem. hrs.
Critical investigation of recent literature in the field of home economics and evaluation of pertinent research studies.

406 *Household Equipment* 2 sem. hrs.
Equipment for the modern home and home economics laboratory. Group and individual experiences with various types of labor-saving equipment.

408 *Family and Child Development* 3 sem. hrs.
Fundamental and current problems regarding the child and the family. Students will obtain practice in problem solving and committee projects.

409 *Recent Trends in Home Economics* 2 sem. hrs. (Formerly 509)
Developments in the field as reflected in more recent practices, survey of methods and materials being used, and review of current professional literature.

- 410 *Family Housing Problems* 3 sem. hrs.
Current trends and problems in housing with emphasis on family living as related to aesthetic, social, economic, and managerial aspects.
- 412 *Advanced Home Management* 3 sem. hrs.
Planning, directing, and coordinating of material and human resources in the home. Experiences are provided which enable students to know and use principles basic to modern household processes. Prerequisite: Home Economics 236.
- 414 *Special Problems in Clothing* 3 sem. hrs. (Formerly 514)
Individual problems in clothing construction.
- 416 *Advanced Problems in Food Investigation* 3 sem. hrs.
Experimental study of foods and food preparation. Opportunity for individual and small group investigations.
- 418 *Selection of Processed Foods* 2 sem. hrs.
Appraisal of processed foods to determine practical utilization of various types. Reports and discussion will be supplemented by field trips and comparative studies in the laboratory. Prerequisite: Home Economics 211.
- 420 *Advanced Nutrition* 3 sem. hrs. (Formerly 520)
Current nutrition research as applied to improved dietary planning. Prerequisite: Home Economics 106, 113; Physical Sciences 132.
- 422 *History of Costume* 3 sem. hrs.
Historical development of textiles and costumes as a background for understanding modern fabrics and styles.
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- 499 *Thesis* 4 sem. hrs. (Formerly 599)

INDUSTRIAL ARTS

TEACHING STAFF

Head of the Department: Charles B. Porter. Office: Industrial Arts Building 14.
Professors: William D. Ashbrook, John L. Johnston, Charles B. Porter.

- 300 *Contemporary Industrial Arts Education* 2 sem. hrs. (Formerly 400)
Prominent leaders and analysis of trends in industrial arts education.
- 301 *Industrial Arts in the Elementary School* 2 sem. hrs. (Formerly 410)
Educational principles underlying industrial arts and their application in the elementary activity program.
- 302 *Evaluation Techniques in Industrial Education* 3 sem. hrs. (Formerly 502)
Historical background of measurement in industrial education; examination of objectives and methods; evaluation of student abilities and growth; evaluation of housing and equipment.

- 303 *Principles of General Shop Organization*
2 sem. hrs. (Formerly 421)
Organizing and teaching procedures in the multiple-activity shop.
- 305 *Improvement of Instruction in Industrial Arts*
3 sem. hrs. (Formerly 505)
Objectives, content, and techniques for improving the teaching of industrial arts.
- 341 *Techniques of Television Servicing* 3 sem. hrs.
Technical aspects of television systems. Laboratory practice in circuit analysis, testing, and repair of television receivers. Prerequisite: Industrial Arts 242.
- 373 *Advanced Driver Education and Traffic Safety*
3 sem. hrs. (Formerly 273)
Advanced professional preparation to meet the traffic safety needs of school and community. Prerequisite: Industrial Arts 272.
- 374 *Materials and Methods of Teaching Safety*
2 sem. hrs. (Formerly 332)
Materials and safety measures appropriate for school, recreation, traffic, and general safety.
- 375 *Traffic Law Enforcement and Engineering*
3 sem. hrs. (Formerly 275)
Functions of traffic engineering, enforcement and administration. Significance of the work of these agencies for the teacher or administrator concerned with traffic safety. Prerequisite: Industrial Arts 272.
- 376 *Problems and Research in Driver Education and Traffic Safety* 3 sem. hrs. (Formerly 276)
Overview of problems confronting workers in this field and major research findings applicable to this area. Emphasis given to gaining a better understanding of research data. Planning for greater utilization of research findings in both school and community traffic safety endeavors. Prerequisite: Industrial Arts 272.
- 400 *Foundations of Industrial Education*
3 sem. hrs. (Formerly 500)
Underlying movements and philosophies which have influenced the development of industrial education.
- 401 *Occupational and Job Analysis* 2 sem. hrs. (Formerly 411)
Techniques and procedures of analyzing industrial occupations and jobs into their basic elements for instructional purposes.
- 402 *Organization and Administration of Industrial Education*
3 sem. hrs. (Formerly 531)
Consideration of the problems confronting the teacher and administrator and the basis for their solution.
- 403 *Seminar in Industrial Arts* 2 sem. hrs. (Formerly 503)
Critical evaluation of research studies, problems, and thesis plans.

404 *Special Projects in Industrial Arts* 3 sem. hrs.

Individual investigation in one or more selected areas of industrial arts. Some laboratory work may be done.

405 *Philosophy of the Practical Arts and Vocational Education*
3 sem. hrs. (Formerly 541)

Philosophy and principles upon which the practical arts and vocational education are based. Intended to serve administrators and teachers, especially teachers of the practical arts and vocational subjects.

499 *Thesis* 4 sem. hrs. (Formerly 599)

MATHEMATICS

TEACHING STAFF

Head of the Department: Clyde T. McCormick, Office: Schroeder Hall 104.
Professors: Douglas R. Bey, Francis R. Brown, Clyde T. McCormick, T. E. Rine.

301 *Teaching of Arithmetic* 3 sem. hrs. (Formerly 401)

Significant problems, points of view, and trends in the teaching of arithmetic. Investigation of research related to organization, content, and techniques in this field. May not be used for a first or second field in mathematics. Prerequisite: Mathematics 201 or teaching experience.

302 *Teaching of Junior High School Mathematics*
2 sem. hrs. (Formerly 402)

Significant problems, points of view, and trends in teaching of junior high school mathematics. Investigation of research and reports related to organization, content, and techniques in this field. Opportunity for study of particular problems of individual interest. Only one course of Mathematics 202 or 302 may be used for a first or second field in mathematics. Prerequisite: Mathematics 116, 201 or experience in teaching arithmetic.

306 *Set Theory* 3 sem. hrs. (Formerly 406)

Equivalent sets and cardinal numbers. Transfinite cardinal numbers as applied to sets of integers, rationals, irrationals, reals, algebraic, complex, and transcendental numbers. Ordered and similar sets. Dense and continuous sets. Prerequisite: Mathematics 116.

310 *Number Theory* 2 sem. hrs. (Formerly 410)

Development of the number system, repeating decimals and congruences, diophantine equations, continued fractions, nonlinear congruences, and quadratic residues.

Prerequisite: Mathematics 116.

312 *Fundamental Concepts of Geometry*
3 sem. hrs. (Formerly 412)

Foundations of geometry. Synthetic projective geometry and properties of projective spaces. Coordinate systems and postulates of separation. Analytic projective geometry related to synthetic. Affine geometry. Prerequisite: Mathematics 116.

313 *Fundamental Concepts of Geometry* 3 sem. hrs.

Euclidean geometry, parallelism, similarity, congruency. Directed angles, perpendicularity. The evolution of geometry. Constructions. Hyperbolic and elliptic geometries. Introduction to topology. Prerequisite: Mathematics 312.

315 *Fundamental Concepts of Algebra* 3 sem. hrs. (Formerly 415)

Set notation and operations with sets. Algebraic structures, rings, fields, and groups. Construction of integers, rationals, and reals. Introduction to number theory. Prerequisite: Mathematics 116.

316 *Fundamental Concepts of Algebra* 3 sem. hrs.

Matrix algebra. Vector operations and vector spaces. Linear systems. Vector geometry. Linear transformations. Linear programming and game theory. Prerequisite: Mathematics 315.

320 *History of Mathematics* 2 sem. hrs. (Formerly 420)

History of modern mathematics. Development of mathematics in the area of number, form discreteness, continuity, and application. Some emphasis is given to recent developments in mathematics. Prerequisite: Mathematics 116.

323 *Teaching and Supervision of Mathematics*

3 sem. hrs. (Formerly 423)

Principles of teaching and learning applied to specific problems of mathematics education. Understanding and use of language and symbolism, problem solving, individual differences, learning aids. Analysis of objectives, recent trends, and practices in classrooms. Problems of supervision of elementary and secondary school mathematics are studied. Prerequisite: Mathematics 116.

325 *Introduction to Finite Mathematics* 2 sem. hrs.

Methods of proof, finite algebra, partition and counting, stochastic processes, matrix algebra, theory of games and linear programming, application to behavioral science problems. Prerequisite: Mathematics 116.

330 *Mathematics of Finance* 2 sem. hrs. (Formerly 430)

Application of mathematics in various fields of finance, with emphasis on problems of investments and insurance. Prerequisite: Mathematics 116.

335 *Advanced Calculus* 3 sem. hrs. (Formerly 435)

Limits and continuity, infinite series, partial differentiation, multiple integrals, line integrals, and other related topics. The necessary review of first-year calculus will be given with each advanced topic. Of special interest to students with a first field in physical sciences as well as mathematics. Prerequisite: Mathematics 116.

340 *Differential Equations* 3 sem. hrs.

First-order and simple higher-order ordinary differential equations and applications, linear differential equations with constant coefficients and applications, and simultaneous differential equations and applications. Of special interest to first field students in physical sciences as well as mathematics. Prerequisite: Mathematics 116.

345 *Vector Analysis* 2 sem. hrs. (Formerly 445)

Vectors and scalars, the dot and cross product, vector differentiation, gradient, divergence, and curl. Vector integration. The divergence theorem, Stokes' theorem, and related integral theorem. Curvilinear coordinates. Of special interest to students with first field in physical sciences as well as mathematics. Prerequisite: Mathematics 116.

350 *Probability and Statistics* 3 sem. hrs.

Sample spaces and random variables. Frequency functions. Linear functions of random variables. Nature of statistical methods. Moment generating function and application to standard frequency functions. Prerequisite: Mathematics 116.

351 *Probability and Statistics* 3 sem. hrs.

Correlation and regression equations. Development of Chi-square, Student's t and F distributions. Likelihood ratio tests. Analysis of variance and non-parametric methods. Prerequisite: Mathematics 350.

360 *Field Work in Mathematics* 2 sem. hrs. (Formerly 460)

Mathematical applications designed to acquaint the teacher of junior and senior high school geometry or trigonometry with practical operation of transit, level, plane table, sextant, angle mirror, and alidade. Applications are drawn from problems associated with surveying, leveling, map making, and various examples of indirect measurement. Prerequisite: Mathematics 116.

365 *Mathematical Logic* 3 sem. hrs.

Formal logic, the statement calculus, truth tables, and tautologies, proof and demonstration, consistency of premises and indirect proofs, abstract mathematical systems, the restricted predicate calculus, symbolizing everyday language, and application of logic in mathematics. Prerequisite: Mathematics 116.

412 *Projective Geometry* 3 sem. hrs. (Formerly 512)

Emphasis on fundamentals common to all geometry. Topics include a study of invariance under a variety of transformations giving rise to projective, affine and metric geometries. Use is made of homogeneous point and line coordinates in "n" dimensional space.

415 *Modern Algebra* 3 sem. hrs. (Formerly 515)

Theoretical properties of formal systems as groups, fields, rings, and vector spaces. Construction of real and complex number systems; the algebra of matrices, determinants, and transfinite arithmetic. Modern algebra applied to other fields: geometry, analysis, physics, and philosophy.

421 *Teaching of Secondary School Algebra* 3 sem. hrs. (Formerly 521)

Problems in the teaching of secondary school algebra. Investigations of reports, research, and recent trends in this area. Opportunity for the study of particular problems of individual interest.

422 *Teaching of Secondary School Geometry* 3 sem. hrs. (Formerly 522)

Problems in teaching of secondary school geometry. Investigation of reports, research, and recent trends in this area. Special emphasis is given to the objectives and content of secondary school geometry. Opportunity for the study of particular problems of individual interest.

450 *Probability and Statistics* 3 sem. hrs. (Formerly 550)

Developing the standard distributions used in testing hypothesis. Topics are chosen from the following areas: analysis of variances, mathematical inference, risk functions, and nonparametric methods. Prerequisite: Mathematics 116.

470 *Topology* 3 sem. hrs. (Formerly 570)

Introduction to combinatorial and set-theoretic aspects of topology. Topics include various methods of defining topological spaces, special topological spaces, and triangulation theory.

490 *Seminar in Modern Mathematics* 1 or 2 sem. hrs. (Formerly 590)

Readings in modern mathematics. Topics in theoretical and applied mathematics discussed by staff and visiting lecturers. Individual study, student reports, and papers. The student may enroll in the seminar for credit more than once if the subject matter is not duplicated and the total credit earned does not exceed eight semester hours.

499 *Thesis* 4 sem. hrs. (Formerly 599)

MUSIC

TEACHING STAFF

Head of the Department: Howard H. Rye. Office: Centennial Building, East 155B.

Professors: Leslie M. Isted, Harlan W. Peithman, Howard H. Rye, Irwin Spector.

Associate Professor: Lyle M. Young.

Assistant Professor: John W. Ferrell.

301 *Form and Analysis in Music* 2 sem. hrs. (Formerly 401)

Structure of classical music ranging from simpler compositions as found in piano works to more elaborate material as found in major sonatas and symphonies.

305 *Composition* 3 sem. hrs. (Formerly 405)

Free composition in larger forms with opportunities for performance of original works for voices, instrumental combinations, or full orchestra.

309 *Orchestration* 3 sem. hrs. (Formerly 417)

Review of instruments: ranges, timbres, technical difficulties and limitations. Arranging for combinations of instruments, full band and orchestra. Study of problems contained in standard repertory. Special attention to problems of school band and orchestra scoring.

351 *The Opera* 2 sem. hrs. (Formerly 451)

Historical development of the opera with emphasis on stylistic elements and trends of the various periods. Study of the plots and music through recordings, piano scores, full scores, as well as live performances.

361 *Instrumental Techniques* 3 sem. hrs. (Formerly 456)

Problems and procedures in developing instrumental classes and organizations.

363 *Choral Techniques* 2 sem. hrs. (Formerly 413)

Clinical aspects of the chorus rehearsal, contemporary choral practices, repertoire and source material, interpretation and program building. Prerequisite: course in conducting or practical experience.

366 *Tonal Measurement* 3 sem. hrs.

Physical measurement of musical tone in relation to the problems in the classroom, the rehearsal, and the performance.

- 371 *Music for the Exceptional Child* 3 sem. hrs. (Formerly 238)
Trends in musical education for exceptional children. Techniques and materials for a functional program of singing, playing, listening, and creative activities based upon the needs of the exceptional child.
- 377 *Music Education in the Elementary Grades* 3 sem. hrs. (Formerly 241)
Basic skills, techniques, and materials for music activities in kindergarten and grades one through eight. Designed to meet the needs of the classroom teacher and elementary principals. Students with a teaching field in music may not take this course except with special permission. Students who have had Music 275 or 276 may not take this course for credit.
- 384 *Opera Production* 3 sem. hrs.
Operas and operettas including the problems of presenting high school and college productions. Members of the class participate in the production of an opera or operetta. Prerequisite: approval of the Head of the Department of Music.
- 400 *Seminar in Music Education* 3 sem. hrs. (Formerly 500)
Individual and group study of trends, practices, and problems in the field of music education.
- 402 *Form and Analysis in Music* 3 sem. hrs.
Continuation of Music 301 with emphasis on harmonic structure.
- 404 *Chromatic Harmony* 3 sem. hrs. (Formerly 504)
Practical experience in writing polyphonically and homophonically using various kinds of embellishments and chromatically altered tones. A major creative project is required. This may be in the form of an original composition, arrangement, or transcription.
- 431 *Applied Music—Brass* 1 or 2 sem. hrs.
Individual instruction on trumpet, cornet, French horn, trombone, baritone, and tuba. This course may be repeated for credit.
- 433 *Applied Music—Organ* 1 or 2 sem. hrs.
Individual instruction on organ. This course may be repeated for credit.
- 435 *Applied Music—Piano* 1 or 2 sem. hrs.
Individual instruction on piano. This course may be repeated for credit.
- 436 *Applied Music—Strings* 1 or 2 sem. hrs.
Individual instruction in violin, viola, cello, stringed bass. This course may be repeated for credit.
- 437 *Applied Music—Voice* 1 or 2 sem. hrs.
Individual instruction in voice. This course may be repeated for credit.
- 438 *Applied Music—Woodwinds* 1 or 2 sem. hrs.
Individual instruction in flute, clarinet, oboe, bassoon, and saxophone. This course may be repeated for credit.

- 452 *The Symphony* 3 sem. hrs. (Formerly 552)
Survey of the symphony orchestra and symphonic literature from early eighteenth century to the present day. Study through recordings, orchestral scores, and piano scores.
- 453 *Problems in Music History* 3 sem. hrs. (Formerly 506)
A systemization of practices leading to the development of historical research and other techniques of investigation. A study of source materials, analytical procedures, and selected readings with certain specific topics studied as exercises. Students will work in areas of personal interest. A reading knowledge of a foreign language is desirable.
- 454 *History of Musical Instruments* 2 sem. hrs. (Formerly 453)
Evolution of musical instruments from the origins to the present, with particular regard to music and general culture. The development of primitive, Oriental, and western instruments.
- 455 *Music in America* 3 sem. hrs. (Formerly 415)
Indigenous and borrowed influences in American music from the time of the early settlements through periods of expansion to present day activities. A background of American musical style and culture and an understanding of present trends will be developed.
- 460 *Psychology of Music Education* 3 sem. hrs.
Investigation of the psychological attributes of sound and their effects upon the behavior of the human organism.
- 461 *Contemporary Practices in Music Education* 3 sem. hrs. (Formerly 524)
Point of view in music education, potentialities of music as an agency for human growth, place and function of music in the curriculum, organization of musical experience and materials for effective learning techniques of evaluation in music education, supervision and administration of music education from kindergarten through junior college, and music education in the community.
- 462 *Tests and Measurements in Music* 3 sem. hrs. (Formerly 561)
Bases upon which aptitude and achievement in music have been and may be measured.
- 463 *Experimental Studies* 3 sem. hrs. (Formerly 510)
Experimental method as applied to problems of music learning, including a survey of research of music education and related areas. An individual experimental term project will be required.
- 464 *Teaching of Theory* 2 sem. hrs. (Formerly 502)
Analysis of current practices in the teaching of theory; techniques of teaching theory during the regular rehearsal of performing groups and an analysis of source material. Project: the development of a practical course in theory as it relates to the student's own teaching situation. Prerequisite: teaching experience or advanced standing in theory.

465 *Sensory Integration in Music Learning* 2 sem. hrs. (Formerly 536)
Practical considerations necessary for the operation and use in the classroom of audio-visual aids to music learning.

468 *Conducting* 2 sem. hrs. (Formerly 536)
Critical examination of scores with reference to tempo, phrasing, nuance, balance, timbre, and the baton techniques involved. For experienced directors.

499 *Thesis* 4 sem. hrs. (Formerly 599)

PHYSICAL SCIENCES

TEACHING STAFF

Head of the Department: Bernard L. Ryder. Office: Science Building 310.

Professors: DeVerne H. Dalluge, G. Harlowe Evans, R. U. Gooding, Esther M. Griffith, Bernard L. Ryder.

Associate Professor: Harold J. Born.

Assistant Professor: Thaddeus C. Ichniowski.

325 *General Science* 3 sem. hrs. (Formerly 374)

Objectives of general science. Selection of subject matter, tests, texts, workbooks, equipment, and supplies will be considered. For teachers qualified to teach general science in the elementary, junior high, and senior high schools.

425 *Problems in the Teaching of High School Physical Science* 2 sem. hrs. (Formerly 503)

Service course for physical science teachers dealing with a consideration of improved techniques, current literature, free and low cost materials, etc. Emphasis on the solution of specific problems that have confronted teachers of physical science in the classroom and laboratory. This course is to be taught on a workshop basis.

CHEMISTRY

331 *Topics in Contemporary Chemistry* 3 sem. hrs. (Formerly 301)

New concepts and recent developments in the fields of organic, inorganic, and analytical chemistry. Prerequisite: Physical Sciences 231 and 241.

332 *Municipal and Industrial Science* 3 sem. hrs. (Formerly 319)

Scientific aspects of community and industrial problems. Includes excursions to industries and research laboratories within a seventy-five mile radius at no transportation cost to the student. Gives a background in applied science as an enrichment for classroom teaching. Prerequisite: Physical Sciences 231 and 241.

333 *History of Chemistry* 2 sem. hrs. (Formerly 501)

Development of chemistry from early times to present.

334 *Chemical Literature* 2 sem. hrs. (Formerly 502)

Introduction to chemical literature in journals, handbooks, abstracts, monographs, and patents. Problems requiring literature searches in all fields of chemistry. Prerequisite: 20 semester hours of chemistry.

340 *Physical Chemistry* 5 sem. hrs. (Formerly 421)

First of a series in theoretical chemistry dealing with gases, liquids, solutions, thermochemistry, thermodynamics, chemical and phase equilibrium, kinetic theory, and chemical kinetics. Four class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 171 or 181, 231, 241, and Mathematics 116.

341 *Physical Chemistry* 5 sem. hrs. (Formerly 424)

Continuation of Physical Sciences 340, including ionic equilibrium, electrical conductance, electromotive force, photo chemistry, spectroscopy, crystals, molecular structure, statistical mechanics, quantum theory, colloids, radioactivity, and nuclear theory. Four class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 340.

342 *Introduction to Biochemistry* 4 sem. hrs.

Chemistry of the proteins, carbohydrates, nucleic acids, vitamins, enzymes; their degradation, formation, and associated energy changes in biological processes. Four class meetings per week including one three-hour laboratory period. Prerequisite: Physical Sciences 231 and 113 or 240.

344 *Qualitative Organic Analysis* 3 sem. hrs. (Formerly 412)

Identification of organic compounds. Three class meetings per week including two three-hour laboratory periods. Prerequisite: Physical Sciences 241.

434 and 435 *Seminar in Chemistry* Each 1 sem. hr.
(Formerly 511-512)

Survey of the current work in chemistry both in pure research and in the application of the newer theories of chemistry to the teaching of chemistry on the secondary level.

440 *Instrumental Methods of Analysis* 3 sem. hrs. (Formerly 451)

Analysis by means of optical and electrical principles and instruments, including such methods as: colorimetry, nephelometry, spectro-photometry, electrometric titrations, polarography, etc. Prerequisite: Physical Sciences 341.

441 *Advanced Inorganic Chemistry* 3 sem. hrs

Interpretation and discussion of the subject matter of inorganic chemistry from the viewpoint of modern theory. Prerequisite: Physical Sciences 341.

442 *Inorganic Preparations* 1 to 3 sem. hrs.

Preparation of typical inorganic compounds illustrating special and more advanced techniques. One three-hour laboratory period per week for each hour of credit. Prerequisite or concurrent registration: Physical Sciences 231 and 241.

443 *Advanced Organic Chemistry* 3 sem. hrs.

An advanced study of organic chemistry including organic reaction mechanisms, syntheses, stereo-chemistry, carbocyclic and heterocyclic compounds. Prerequisite: Physical Sciences 241.

444 *Organic Preparations* 1 to 3 sem. hrs.

Synthesis of organic compounds with emphasis on techniques and procedures frequently applied in synthetic work. One three-hour laboratory per week for each hour of credit. Prerequisite or concurrent registration: Physical Sciences 231 and 241.

PHYSICS

380 *Fundamentals of Nuclear Physics* 3 sem. hrs. (Formerly 460)

Properties of the atomic nucleus, disintegration processes, detection techniques for nuclear radiation, energy levels, and selection rules. Detailed consideration of topics involved in experimental nuclear research. Prerequisite: Physical Sciences 284.

382 *Theoretical Physics* 3 sem. hrs. (Formerly 463)

Selected topics in the mathematical techniques needed for graduate physics and applications of these techniques to mechanics, electricity and magnetism, and relativity. Prerequisite: Mathematics 340 and two 200 or 300 level courses in physics.

383 *Electron Physics* 3 sem. hrs. (Formerly 462)

Free electron gas theory of metals including thermionic emission, photoelectric emission, contact potentials, electrothermal and magneto-electrical effects, discharge of electricity in gases. Prerequisite: one 200 or 300 level course in physics.

384 *Introduction to Quantum Mechanics* 3 sem. hrs.

(Formerly 561)

Mathematical formulation of quantum theory and applications to simple systems. Prerequisite: Physical Sciences 284 and Mathematics 340.

480 *Advanced Electricity and Magnetism* 3 sem. hrs.

(Formerly 461)

Maxwell's equations; scalar, vector potentials; dielectrics and conductors; Maxwell's theory of the electromagnetic field. Prerequisite: Physical Sciences 282.

481 *Introduction to Solid State Physics* 3 sem. hrs.

Description and classification of crystals, with an explanation of their elastic, electric and magnetic, electronic and optical properties. Prerequisite: one 300 level course in physics.

482 *Advanced Mechanics* 3 sem. hrs. (Formerly 562)

Reference frames and their transformation; dynamics of particles and system of particles; dynamics of rigid rotators; Hamilton's principle; Lagrange's equations; introductory elasticity and fluid dynamics. Prerequisite: one of the following—Physical Sciences 280, 284, and Mathematics 340.

483 *Neutron Physics* 3 sem. hrs. (Formerly 563)

Scattering and capture of neutrons; neutron sources; nuclear fission, resonance phenomena, diffusion, power production. Prerequisite: one of the following—Physical Sciences 380, 383, 480.

499 *Thesis* 4 sem. hrs.

(Formerly 529)

SOCIAL SCIENCES

TEACHING STAFF

Head of the Department: Benjamin J. Keeley. Office: Schroeder Hall 323.

Professors: Helen M. Cavanagh, Alice M. Eikenberry, Arlan C. Helgeson, Benjamin J. Keeley, John A. Kinneman, Helen E. Marshall, Vernon C. Pohlmann, Theodore Sands, Lucy L. Tasher.

Associate Professors: Alice L. Ebel, Walter S. G. Kohn, Henri R. Pearcy, Robert S. Ravicz, Earl A. Reitan.

Assistant Professors: John H. Behling, Roger J. Champagne, Mark A. Plummer, Douglas Poe, Hans-Dieter Renning, Ronald D. Ware.

Students in the curriculum for secondary and community college teachers with a major in this department must complete nineteen semester hours in social sciences, not including thesis. Undergraduate and graduate work must total at least eight semester hours in each of the following areas: United States history, world history, economics, political science, and sociology-anthropology.

306 *Regional and Areal Studies* 1 to 9 sem. hrs.

An intensive study of particular lands, environments, cultures, and peoples. May be given in cooperation with other departments, on or off campus. The areas to be studied, participating departments, and credit hours available in the several departments, will be announced each time the course is offered.

ECONOMICS

370 *Transportation* 3 sem. hrs. (Formerly 270)

Development of railway, waterway, air, and highway transportation. Considerable attention is given to the major problems growing out of increased traffic and its regulation. Major emphasis on contemporary conditions and problems. Prerequisite: Social Sciences 171.

371 *Intermediate Economic Theory* 3 sem. hrs. (Formerly 571)

Intense and critical examination of the economic theory underlying the operation of a system of free enterprise. Prerequisite: Social Sciences 171.

375 *Public Finance* 3 sem. hrs. (Formerly 475)

Governmental expenditure and income with emphasis upon the continuous expansion of federal expenditures and problems growing out of that situation. Prerequisite: Social Sciences 171.

377 *Selected Studies in Economics* 3 sem. hrs.

The field of study covered will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once. Prerequisite: Social Sciences 171.

378 *History of Economic Thought* 3 sem. hrs. (Formerly 275)

Economic thought and theory from ancient to modern times. Emphasis on those ideas which influenced the economic development of western civilization. Prerequisite: Social Sciences 171.

379 *International Economics* 3 sem. hrs. (Formerly 271)
Designed to examine such basic aspects of the international economy as the reasons for trade, the terms of trade, and the adjustments necessary to achieve the highest possible plane of living. Particular emphasis on the tariff issue and the purposes and functions of the international financial institutions now extant. Prerequisite: Social Sciences 171.

HISTORY

320 *European Background of American History* 3 sem. hrs. (Formerly 420)
European origins of American arts and institutions based on an analysis of the American scene and the tracing of European influences to the sources.

324 *Selected Studies in European History* 2 sem. hrs. (Formerly 424)
The field of study will vary every semester according to the interests and needs of students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once.

331 *Lincoln: the Man and His Times* 2 sem. hrs. (Formerly 431)
Emphasis on the use of biography and collections of Lincoln materials, both private and public. Attention directed especially toward the work of Lincoln in Illinois, his leadership during the Civil War, and his relationships with men and events of his time.

333 *History of the Mississippi Valley* 3 sem. hrs. (Formerly 433)
Study in regionalism. Emphasis on the frontier, population movements, natural resources, and unique economic, political, and social development.

337 *The United States and the Twentieth Century* 2 sem. hrs. (Formerly 437)
Social, intellectual, political, and economic history of the age of giant industry and international finance; progressive reform and conservative reactions; depression and social experiment; world conflict and the assumption of international responsibilities.

338 *Selected Studies in American History* 3 sem. hrs.
The field of study will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once.

346 *Selected Studies in the History of Asia* 2 sem. hrs. (Formerly 446)
The field of study will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken for credit more than once.

435 *Research Problems in Local History* 3 sem. hrs. (Formerly 535)
Intensive study of a problem connected with the political, cultural, and social development of Illinois. For advanced students.

- 439 *Cultural History of the United States* 3 sem. hrs. (Formerly 539)

American progress in the fine arts, philosophy, literature, and science, and refinement in tastes and manners. Special note is taken of sectional variations and the impact of immigration, urbanization, and industrialization upon the nation's cultural growth.

- 491 *Historical Method, Bibliography and Historiography* 3 sem. hrs. (Formerly 591)

Intended for students who plan to prepare a thesis in history. Other students interested in these topics may enroll. Both European and American history included.

POLITICAL SCIENCE

- 454 *Selected Studies in American Government* 2 sem. hrs. (Formerly 554)

National, state, and local government. Will vary from one semester to another according to the interests and the needs of students and availability of instructors. Provided different material is covered, the course may be taken for credit more than once.

- 455 *Political Thought* 3 sem. hrs. (Formerly 555)

Intensive study of some of the most important authors of political ideas—Plato, Aristotle, Machiavelli, Hobbes, Locke, Montesquieu, Rousseau, Jefferson, Marx, Mill. Their impact on our modern world.

- 458 *Selected Studies in Foreign Governments and International Organizations* 3 sem. hrs.

Intensive study of particular national or international systems and structures. The general field covered in this course will vary according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once.

SOCIOLOGY AND ANTHROPOLOGY

- 366 *Contemporary Social Movements* 2 sem. hrs. (Formerly 466)

Analysis of social unrest as indicative of social disorganization; patterns of collective behavior; structure and functions of social movements. An examination of various types of social movements—religious, political, revolutionary, youth, agrarian, and reform. Analysis of morale, strategy, types of leaders, and control mechanisms.

- 367 *Criminology* 2 sem. hrs. (Formerly 467)

Intensive study of the causes of crime and delinquency, together with the recognition, detection, and prevention of criminal acts. Attention given to roles to be assumed by contemporary institutions in preventing crime; also to the evolution of penology and current practices in penal care.

368 *Public Opinion and Propaganda* 3 sem. hrs. (Formerly 558)
Basic implications, modern techniques, and current machinery of communication. Control exercised by the folkways, government, business, religion, motion pictures, radio, and education. Special attention is focused on those phases of the material which are related to the work of the school. May be considered political science as well as sociology.

381 *Cultural Anthropology* 2 sem. hrs.
Examination of family life, economic organization, religion, folklore, social organization, government, language, education, inventions, and art forms of pre-literate peoples as a background for curricular materials in the elementary school.

383 *Selected Studies in the Cultures of Africa* 2 sem. hrs. (Formerly 483)
Concentrated study of culture patterns of selected groups in Africa. Introduction to the physical characteristics and history of the aboriginal African peoples and study of their social, political, and intellectual life. An analysis of the dynamics of culture change together with the human problems resulting from these changes. Prerequisite: Social Sciences 106, 166, or 181.

384 *Selected Studies in Anthropology* 3 sem. hrs.
The field of study covered will vary each semester according to the interests and needs of the students and the availability of instructors. Provided different material is covered, the course may be taken more than once.

460 *Research Methods in Sociology and Political Science* 3 sem. hrs.
Development of an adequate research design for surveys; experiments and testing hypotheses in political science and sociology; data collection; analysis; interpretation; reporting and application. Intended for students who plan to write a thesis in political science or sociology.

463 *Child Welfare Services* 3 sem. hrs. (Formerly 563)
Examination of policies, personnel, facilities, and practices for the care of dependent, neglected, delinquent, physically-handicapped, and mentally-retarded children. Consideration given to adoptive procedures, foster-home placements, probation, parole, and vocational placements.

465 *Selected Studies in Contemporary Sociology* 3 sem. hrs.
The field of study will vary each semester according to interests and needs of the students and availability of instructors. Provided different material is covered, the course may be taken more than once.

466 *Social Theory* 2 sem. hrs. (Formerly 566)
Social theorists and their theories—Comte, Cooley, Durkheim, Giddings, Gumpłowicz, Le Bon, Ratzenhofer, Ross, Small, Spencer, Sumner, Tarde, Thomas, and Ward—will be related to and integrated with educational policies.

469 *Educational Sociology* 2 sem. hrs. (Formerly 569)
Examination of the social implications of the curriculum and the way in which it is derived. Consideration given to the diffusion of culture, the culture lag, social control, and social processes. Selection of current materials which are objective, functional, institutional, and descriptive.

499 *Thesis* 4 sem. hrs. (Formerly 599)

SPEECH

TEACHING STAFF

Head of the Department: Charles A. White. Office: Centennial Building, West 218E.

Professors: G. Bradford Barber, Dorathy Eckelmann, Glenn J. Taylor, Charles A. White.

Associate Professors: Ralph L. Smith, George A. Soderberg, Harry E. Stiver.

Assistant Professor: Ted R. Jackson.

311 *Phonetics* 3 sem. hrs.

Sound system of American speech and its standard and sub-standard variations. Practice in transcribing and reading phonetic symbols.

317 *Speech Clinic* 1 to 6 sem. hrs. (Formerly 217)

Diagnostic tests and methods of speech correction applied to those enrolled in the Speech Correction Clinic. Students enrolling in this course should have the permission of the instructor. Prerequisite: Speech 212 or 215.

318 *Clinical Procedures in Speech Correction* 3 sem. hrs.

History and development of speech correction, the procedures for setting up and carrying out a public school speech correction program. Evaluation techniques and procedures and their application to various speech disorders and to methods of speech correction.

319 *Speech Pathology* 5 sem. hrs. (Formerly 219)

Speech disorders arising from structural, neurological, and endocrine pathologies. Psychological problems, including stuttering. Emphasis on diagnostic and therapeutic procedures. Prerequisite: Speech 212 or 215.

321 *Speech Composition* 3 sem. hrs.

Theory and practice in demonstrative, deliberative, and forensic address through a study of theories of style and historically significant models.

324 *Persuasion* 2 sem. hrs.

Study and practice in the art of influencing the beliefs and behavior of men through speech. Emphasis on the Aristotelian areas of persuasion—logical, personal, and emotional—and the audience in the speech situation. Prerequisite: Speech 110 or 112.

328 *British and American Public Address* 3 sem. hrs.

(Formerly 428)

Outstanding speakers of Great Britain and the United States from the beginning of the 18th Century to the present and the main issues which motivated them.

333 *Modern Drama* 3 sem. hrs.

Trends in dramatic literature and theatrical production from Ibsen to the present day. Reading reports and discussion of the plays of the leading dramatists of Europe, Great Britain, and America. Alternates with Speech 335.

334 *History and Styles of Stage Costuming* 3 sem. hrs.

Concentrated history of costumes from the ancient Egyptian period to the present time. Emphasis on the costume's reflection of cultural and social

milieu. Consideration of the costume's practical application to the stage. Laboratory to be arranged with instructor. Prerequisite: Speech 134.

335 *History of the Theatre* 3 sem. hrs.

Background for the study and production of plays including the reading of great plays of different historical periods, a study of the manner in which they were produced, and their relation to the cultural life of the time. Prerequisite: Speech 132.

336 *Problems in Acting* 3 sem. hrs.

Introduction to and practice in the various advanced styles of acting prevalent in the more important periods of theatrical history and native to specific forms of comic and serious drama. Laboratory to be arranged with instructor. Prerequisite: Speech 132.

337 *Problems in Directing* 3 sem. hrs.

Theories and techniques of directing plays of differing forms, styles, and historical periods. Concentration on various aesthetic principles involved in directing in different types of theatres. Laboratory to be arranged with instructor. Prerequisite: Speech 131 and 132.

341 *Advanced Oral Interpretation of Literature* 3 sem. hrs.

The oral study of selected types of literature with emphasis upon drama and poetry; projects in organizing materials; presentation of individual and multiple reading projects. Prerequisite: Speech 141.

350 *Audiometry and Hearing Aid Selection* 2 sem. hrs.

Use of equipment for determining hearing loss; the interpretation of test results; hearing aid selection procedures. An additional class hour is scheduled for laboratory practice.

351 *Lip Reading and Auditory Training* 2 sem. hrs.

Principles and methods of teaching lip reading. Procedures for training in the use of residual hearing. Special speech problems of the hard of hearing. Prerequisite: Speech 350 or consent of Head of Department of Speech.

352 *Clinical Practice in Lip Reading and Auditory Training*
2 sem. hrs.

Practice in teaching lip reading and training in the use of residual hearing with children and adults. Consideration of instructional materials and problems of actual rehabilitation. Prerequisite: Speech 351.

356 *Conservation of Hearing* 2 sem. hrs.

Hygiene of the hearing apparatus. Causes of hearing loss—partial and complete. Types of hearing loss and their effect on the acquisition and retention of speech.

370 *Psychology of Speech* 2 sem. hrs.

Speech as visible and audible stimuli and responses, its origin and development, its functions, its fine arts and utilitarian aspects. The speech personality. The nature of various kinds of audiences. Prerequisite: ten semester hours in speech.

371 *Speech Science* 2 sem. hrs.

Principles of physics involved in the production and reception of spoken language.

372 *Anatomy and Physiology of Hearing and of Speech* 2 sem. hrs.

Anatomy and physiology of the ear and organs of speech beginning with their embryological development; dissection displays, models, slides. Prerequisite: Biological Sciences 181 and 182.

- 381 *Teaching of Speech in the Secondary School* 2 sem. hrs. (Formerly 481)
Present trends in the teaching of speech and as evaluation of current teaching materials.
- 415 *Seminar in Speech Correction* 2 sem. hrs. (Formerly 515)
Prerequisite: Speech 215 and 219.
- 416 *Speech Pathology* 3 sem. hrs.
Etiology of defective speech arising from neurological and structural pathologic conditions and methods of therapy used to remedy such deviations. Prerequisite: Speech 219 and previous study of phonetics.
- 417 *Clinical Practice in Speech Correction* 1 to 6 sem. hrs. (Formerly 517)
Supervised work with speech disorders of various types. Prerequisite: Speech 212 or 215, study of phonetics and clinical services, and previous clinical experience.
- 418 *Stuttering* 3 sem. hrs.
Study of the research relating to stuttering and of the methods of examination, diagnosis, and remedial procedures. Prerequisite: Speech 219.
- 421 *Seminar in Rhetoric* 2 sem. hrs. (Formerly 521)
- 423 *Seminar in Communication* 3 sem. hrs.
Theory and practice in the various forms of communication.
- 424 *Persuasion and Social Control* 2 sem. hrs.
Study of and practice in persuasive speech; its use in social control.
- 425 *Advanced Argumentation and Debate* 2 sem. hrs.
Advanced study in argumentation and debate. Prerequisite: Speech 125.
- 426 *Survey of Classical Rhetoric* 3 sem. hrs.
Ancient rhetoricians from Corax to Quintillian, with special emphasis upon the works of Aristotle and Cicero.
- 427 *Rhetorical Criticism* 3 sem. hrs.
Critical consideration of rhetorical and psychological principles involved in meeting speech situations.
- 431 *Theatres and Auditoriums: Planning and Design* 3 sem. hrs.
Technical problems in stage and auditorium design and planning, with special emphasis on stage, lighting, and sound equipment and control. Laboratory to be arranged with instructor. Prerequisite: Speech 131.
- 435 *The British Theatre* 4 sem. hrs.
Trends in dramatic literature and theatrical productions in England from the Restoration period to the present time.
- 436 *The American Theatre* 4 sem. hrs.
Development of the theatre, its dramatic literature and its art and crafts, in America from its beginning to the present time.

438 *Drama Theory and Criticism* 3 sem. hrs.

Theory of dramatic technique and criticism in Europe, England, and America from classical times to the present. Concentration on major writings of leading influential theorists and their relationship to the development of drama and theatre. Further emphasis on current trends and problems in dramatic criticism. Opportunities afforded for practice in drama criticism.

439 *Drama Form* 4 sem. hrs.

Major serious and comic drama forms in the theatre: tragedy, comedy, melodrama, farce, and their variants. Stress on origins, backgrounds, elements, influences, and effects of the various drama forms and their creators in western theatre from classical times to the present. Reading, analysis, and critique of several representative plays exemplifying serious and comic forms studied.

440 *Selected Studies in Drama and Theatre* 4 sem. hrs.

The field of study will vary each semester according to interests and needs of students. Units include: aspects of drama form and their application to modern and traditional theatre practice, drama theory and criticism, theatre history, and special problems in dramatic production.

450 *Clinical Acoustics* 2 sem. hrs. (Formerly 550)

Advanced testing procedures employing laboratory equipment in conducting extensive hearing studies. Prerequisite: Speech 350 or 452.

451 *Seminar in Audiology* 2 sem. hrs. (Formerly 551)

452 *Aural Rehabilitation* 3 sem. hrs.

Evaluations of limitations in oral communication imposed by hearing losses; training and counseling procedures, theory and practice.

455 *Pathologies of Hearing* 2 sem. hrs. (Formerly 555)

Functional deviations in impaired hearing; related pathologies of the ear as compared with the physiology of the normal ear. Prerequisite: Speech 356 or 452.

461 *Social and Educational Aspects of Radio and Television*
3 sem. hrs.

Cultural, political, and economic problems posed by the media; current status of education broadcasting; and development of discriminating consumers of broadcast programs.

471 *Experimental Phonetics* 2 sem. hrs. (Formerly 571)

Laboratory course in the study of phenomena prevailing in and accompanying the production of spoken language.

481 *Seminar in Speech Education* 2 sem hrs. (Formerly 581)

499 *Thesis* 4 sem. hrs. (Formerly 599)

WORKSHOP

393 *Workshop* 1-6 sem. hrs.

Advanced workshop for juniors, seniors, and graduate students. Credit will be given by the department offering the workshop.

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Associate Professor of Parasitology
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 Assistant Professor of Sociology
 Dean of the Undergraduate School
 Professor of Education
 Professor of Mathematics
 Associate Professor of Spanish
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 President
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 Associate Professor of Vertebrate Zoology and Paleontology
 Assistant Professor of Geography
 Head of the Department of Speech
 Professor of Speech
 Associate Professor of Art
 Head of the Department of Agriculture
 Professor of Agriculture
 Associate Professor of Music
 Professor of Agriculture

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